XII
Regional Conference
ON WOMEN
in Latin America and the Caribbean

Women in the digital economy

Breaking through the equality threshold

UNITED NATIONS

ECLAC

DIOS PATRIA LIBERTAD
REPÚBLICA DOMINICANA

MMUJER
MINISTERIO DE LA MUJER
¡Trabajando por la Igualdad y la Equidad!

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Foreword

On the eve of the twelfth session of the Regional Conference on Women in Latin America and the Caribbean, ECLAC has prepared the document, *Women in the digital economy: Breaking through the equality threshold*, as a contribution to the regional debate. This document systematizes and describes various dimensions that shape the way the region's women participate in the labour market and how they access and use the different elements of the digital economy. It documents experiences, initiatives and policies aimed at improving women's quality of life through information and communications technologies (ICTs). This is a summary of that document.

This is a crucial time, in which governments, businesses and citizens in the region must reflect and take action in order to foster new approaches to development. A new equation must be forged between the State, the market and society to make progress towards an equitable development model based on employment, economic productivity growth, social well-being and environmental sustainability. The milestones that must be attained along this path involve key factors such as education, science and technology, innovation and entrepreneurship, care systems, the role of territories and cultural diversity.

In this connection, ICTs provide essential support across all economic, political, cultural and social activity. As such, they are potential allies in the drive to achieve equality by helping reduce the gender inequities which constitute not only a gender digital gap but also a social divide. If women are to enjoy opportunities in a context of extremely

rapid technological development, they must have access to ICTs, although this alone will not suffice.

With this in mind, the document looks at the discussion surrounding structural change and women's participation in the information society and the potential for increasing their autonomy in the framework of the new technology paradigm. It goes on to map women's labour market status and uses available survey data to review indicators of Internet access and use and thereby measure the gaps between men and women in various social and geographical dimensions.

Women's access to ICTs is constrained by factors that go beyond matters of technological infrastructure and language. That fact that women use ICTs less than men in Latin America and the Caribbean is undoubtedly a direct result of inequality and stereotypes in areas such as education and professional training, employment and access to income.

The document looks at the results of three studies which have explored different areas of the digital economy: the electrical and electronics industry, call centre services and women using ICTs in enterprise. Women's participation in the world of science and knowledge is then discussed, examining the trajectories of women devoted to scientific research in the region.

Public policies on gender equality must take into account the key and interconnected dimensions of economy, well-being and technology if they are to be capable of providing an ambitious and innovative response to the challenges of today's society. The core argument in the reflection on ICTs and gender equality thus has to do with how women engage in processes of change and sustainable development in the countries, which cannot be achieved without equal participation by men and women.

From this perspective, the gender digital gap offers a specific opportunity to tackle gender inequalities in the region, because digital technologies are tools that are capable of improving living standards and access to employment, income and education and health services. Accordingly, the document sets forth a series of experiences relating to public policy and initiatives by national and international organizations, which illustrate the progress and efforts under way to leverage ICTs for women's well-being.

Lastly, the gender perspective is addressed as it applies to digital strategies under way in the countries of the region. This illustrates the

need for governments to make greater efforts to ensure that women gain more benefits from ICT resources.

ICTs have the potential to boost women's economic, political and social empowerment, and to consolidate gender equality in the region. Yet this potential cannot be achieved unless women overcome the barriers to ICT access and use and become fully integrated into the information and knowledge society.

This reflection brings together two thematic and public policy areas which have tended to be treated separately. As well as posing major challenges, this suggests a future agenda for research and government action ripe with potential from the perspective of both women's autonomy and the countries' development.

In this document ECLAC proposes that the governments of the countries in the region need to plan, implement and oversee policies on development —especially on production development— with an eye to the fact that women make up half of the population. Policies cannot be neutral. They must consider and aim to overcome the gender inequalities evident in the State, the market and the family. The gender perspective must cut across digital strategies for closing digital gaps (in access and, above all, in use) and resolving the specific problems, disadvantages and discrimination faced by girls, adolescent girls and women.

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Introduction

The twelfth session of the Regional Conference on Women in Latin America and the Caribbean, bringing together representatives of the Governments of the region, will focus on gender equality, the empowerment of women and information and communication technologies (ICTs). The Governments gathered at the Fourth Ministerial Conference on the Information Society in Latin America and the Caribbean in April 2013 reaffirmed their commitment to continue making progress towards meeting the targets identified in the Plan of Action for the Information and Knowledge Society in Latin America and the Caribbean (eLAC2015) and recognized the need for a development-based approach to policymaking and for mainstreaming gender and opportunities with a vision of inclusion that promotes equality and, in particular, narrows the digital divide.

This study highlights the range of opportunities which ICTs open up for furthering women's autonomy and gender equality, but cautions that women in the region are not yet on an equal footing with men in the information and knowledge society. Although rates of Internet access and use have risen in all the countries, a large gender gap remains to the detriment of women. The gender gap in digital inclusion is evident in countries of differing levels of development and is rooted in persistent unequal relations and gendered cultural stereotypes.

The data compiled for the study show that women lag behind men in benefiting from the progress of the digital society. This applies both to the production of new technologies and to their various fields of application,

and to the labour market in particular. The study looks at women's employment in ICT assembly in the electrical and electronics industry, in call centres and in the field of scientific and technological research, and considers women's enterprise in several of the region's countries.

These cases show that ICT use has varying and not always necessarily linear impacts on the progress of gender equality. Although advances have been achieved in this direction, old inequalities remain and new ones have arisen, reflecting the vicissitudes of the process, and the roadblocks and resistance to change it encounters.

ICT-related progress in gender equality has to do with the fact that production and use of the new technologies, and the resulting changes in the organization of production and labour, open up new areas of work and economic and personal autonomy for women, and this weakens the traditional structures and representations that have traditionally ordered men's and women's life and work. This document showcases a wide range of initiatives that demonstrate how ICT access and use by women can help to improve their quality of life and promote gender equality in such areas as health, education and the effort to combat violence. In this regard, ICTs may be seen as offering an opportunity to restructure social gender relations in a more equal manner, more typical of the new form of economic organization.

Technological and economic changes have also brought some adverse effects, however, including more precarious employment conditions and the intensification of labour. This is in addition to new and reconstituted forms of work organization, such as digital Taylorism, and a flexibility which serves the needs of firms, but often dictates constant availability to fulfil the requirements of paid work. This hinders the reconciliation of work and family life for both men and women.

The quality of women's employment in ICT-related sectors is marred by gender occupational segregation and undervaluation of women's work. The advent of new technologies has not significantly altered the segregation of occupational structures; in fact, it has introduced new segmentation in some of them. Although women outpace men in terms of achievement of Millennium Development Goals in the area of education, labour discrimination persists, inasmuch as women with higher levels of education occupy posts similar to those held by men with lower levels of schooling.

The smaller range of occupations available to women and the difficulties they face in entering management posts go some way to explaining wage differences between men and women.

In short, the analysis finds that women and men are entering the process of ICT-driven production restructuring on an unequal footing. The gender order under which women are still the main providers of unpaid and care work in the household interacts with the new forms of organization of the global economy based on globalization and the large-scale use of science and technology. This largely explains why gender gaps in the labour market are so slow to close, including in highly technologically developed labour markets in which ICTs are an integral part of the production and management model.

The study emphasizes that economic and technology policies have the power to promote gender equality or reproduce existing inequalities, depending on how, and in what context, they are designed and implemented. One of the most worrisome findings was the lack of active gender-aware policies on industrial, labour, technology and scientific matters.

Policies on development, in particular on production development, cannot be neutral. Just as they must take account of inequalities between countries and economies, they must also unmask and demolish the generalized supposition that men and women shed their social and cultural roles when they enter the labour market. Getting women into paid work under equal conditions with men will take policies for structural change that take account of the differences and inequalities between women and men in terms of their position in society, the labour market and the family. From a gender perspective, the challenge for public policies for the information society is twofold: to maximize the opportunities offered by the digital revolution and to minimize the risk of women falling behind. This is not only a technological, but also a political, challenge. Rising to this challenge depends on the will to adopt gender-mainstreamed digital strategies, while tapping the new possibilities offered by ICTs to forge ahead with the gender equality agenda.

I. Women in the information and knowledge society: opportunities and challenges

With a view to understanding the changes taking place, studying their impact and identifying potential opportunities for achieving gender equality, this chapter looks at how women are faring in the labour market and at the gender digital divide, discusses the reasons for promoting structural change for equality in the information and knowledge society, and analyses women's autonomy in the new technology paradigm.

A. The pattern of women's employment

Female participation in the labour market, regarded as one of the most important and enduring social and economic transformations of recent decades, has not lost ground during crises. But progress has slowed since the start of the new millennium, and women's employment status has remained as precarious as ever. It is women with higher levels of education, fewer family responsibilities and more resources to pay for care services who have the highest rates of economic participation. This stratification of the female workforce is exacerbated by the segmentation of the labour market itself and compounded by an undersupply of care services (Rodríguez and Giosa, 2010).

Although women have a significant presence in the labour market, occupational segregation persists. It is a clear demarcation between market sectors and the jobs held by men and by women. Occupational segregation occurs in two dimensions: horizontally and vertically. Horizontal segregation means that women are more often found in certain sectors and certain occupations; with vertical segregation, men and women are distributed unequally across hierarchical levels, revealing the difficulties women face in getting ahead in their profession and gaining access to more skilled and better-paid jobs.

B.   The second digital divide

Not long ago, the digital divide was a question of access to the Internet, and groups were included or excluded from the information society on that basis. Today, Internet coverage is increasing exponentially all over the world. The digital divide has become more complex than Internet access alone, with the result that the categories within it have also become more complex. There is an initial digital divide in terms of access to computers and an Internet connection, which is based on sociodemographic factors. A second divide concerns the intensity and diversity of use, and it is determined by the capabilities and skills individuals acquire in using new equipment and resources.

The second digital divide is particularly important because access (provision of infrastructure, distribution of devices and introductory learning software) is an easier barrier to overcome than use and skills. Over and above the matter of time spent using a computer or the Internet, differences in the way that men and women use these tools require examination (Castaño, 2008).

Women are disproportionately affected by the second digital divide. In several countries in the region, women and men enjoy equal access to the Internet, which would indicate that the first digital divide is disappearing. Not so the second digital divide, where women are at a clear disadvantage compared with men since their usage is more limited and they perform activities requiring less technological skill (Castaño, 2008). These differences can be traced to asymmetric power relationships between men and women, rooted historically in the hegemonic gender system that is reproduced in the family, at school and in the working world.

C.   Structural change for equality in the information and knowledge society

Production structures in the Latin American and the Caribbean countries are in need of reform. They are currently extremely heterogeneous; knowledge-intensive sectors make up only a small proportion, which tends to heighten social inequality. Structural heterogeneity is one reason for the region's deeply rooted social inequality, since productivity

gaps reflect and at the same time determine capacities to integrate technical progress, bargaining power, access to social safety nets and options for upward occupational mobility (ECLAC, 2013b). In all these areas, women encounter more difficulties than men at the same socioeconomic level.

Structural change entails abolishing models that perpetuate the entrenched inequalities in gender labour relations that assign hierarchical roles and more advantageous places or jobs to men; it goes beyond the sustained efforts in training, professionalization and autonomy made by women in the region.

Development strategies based on structural change are an option that would enable countries to join the information and knowledge society in a more advantageous position. Given that women bear the larger burden of inequality in these societies, it is even more important to study the opportunities and obstacles they encounter in their efforts to participate in the knowledge society on equal terms with men.

D. Women's autonomy in the new technology paradigm

The sexual division of labour and the extra burden of unpaid work carried out by women hamper their full incorporation into the process of structural change. Any analysis performed for the purposes of shaping public growth and equality policies must therefore pay special attention to aspects that could underscore the concept of structural change with equality, specifically gender equality, opening opportunities for men and women alike. Economic, technology and social policies aimed at structural change can either promote gender equality or take a neutral approach, which would ensure that inequalities persist. Particular attention must thus be paid to each stage of production policy development, from design and implementation to subsequent monitoring and evaluation, continuously measuring its impact on the lives of women and men.

Two levels of analysis are used to delve more deeply into the subject of women's autonomy in the new technology paradigm. First, possible strategic links between the information and knowledge society and the gender equality agenda are discussed. Second, tools that the gender equality agenda could exploit to meet its objectives are considered.

1.   Strategy: challenging neutrality

At the strategic level, the aim is to find common ground between the information and knowledge society and the gender equality agenda, and to pinpoint areas of action for gender equality policy within the new paradigm. At this level of analysis comes, also, an examination of the potential opportunities for women's autonomy offered by new forms of production, greater job flexibility and developments in ICT-mediated services. This strategic reflection calls for rethinking the meaning of present and future development; one of its first consequences for development is to blow apart the mode of thinking in which women's unpaid work has historically not been treated as work. This conceptual shift transforms the development analysis framework, calls into question the established hierarchy of production and reproduction, and raises questions regarding public policy priorities.

Such issues constitute a platform from which to study the expected positive impact of a convergence between the environment created by the information and knowledge society and advances in public policy for gender equality.

Identifying potential windows of opportunity requires an understanding not only of the nature of the ICT paradigm, but also of the new international corporations. Domestic production policies are in a state of flux, and they must openly question the most effective and fairest way of integrating women who are seeking paid work and access to income and welfare on equal terms with men.

For this to happen, policies that take account of care requirements must be developed, given that these duties are currently performed almost exclusively by women on an unpaid basis. Production development policies will not work without policies for providing women with adequate access to the world of work and increasing men's responsibilities in the home. This, then, is what is meant by questioning the apparent neutrality of policies (Montaño, 2010).

2.   Implementation: using ICTs to achieve equality

This consists in using all the tools made available to women by the new technology paradigm that will be useful for disseminating and taking action aimed at achieving equality between men and women. Key questions here concern the way in which ICTs can be used to enhance

equality-based actions and policies, and the tools that would enable governments to improve the effectiveness of their actions to achieve gender equality.

E. Concluding remarks

There are at least three conclusions to be drawn regarding women's autonomy and gender equality in the new information society paradigm. First, it is clear that in the digital economy as in other economic models, opportunities are not distributed equitably among countries or among individuals, creating asymmetries that must be combated with specific policies targeting the source of inequality. Second, the fact that the digital divide between men and women is widening as the number of Internet users increases is a wake-up call in favour of the implementation of active gender equality policies, since better access to ICTs will not by itself resolve the gender digital divide. Lastly, the structural change that the countries of the region are to undergo must overcome the characteristic neutrality of public policies to include action aimed at achieving equality between men and women.

II. Where are women in the economy? Work, employment and access to and use of information and communication technologies

According to the population projections drawn up by the Latin American and Caribbean Demographic Centre (CELADE)-Population Division of ECLAC, women account for 50.9% of the population of Latin America and the Caribbean, which represents over 300 million individuals. Yet women continue to be treated as a vulnerable, exceptional or minority group. Many of them experience precarious living and working conditions and they face persistent discrimination. Problems such as violence and work overload reduce women's quality of life and curtail the enjoyment of their rights.

The aim of this chapter is to use a set of indicators that shows how women are positioned in the regional economy and how they use the Internet. Household surveys and, in some cases, population or economic censuses, are taken as the primary sources in describing the places women occupy in the economies, and the main challenges they face in fully integrating into the information and knowledge society.

A. Women in the labour market

When looking at certain gender indicators, one of the main challenges is to understand why a greater proportion of women than men (of working age, aged 20 to 59) live in poor households. Issues relating to the burden of care work and family responsibilities constrain women's ability to enter the labour market and generate the income that may help lift these households out of poverty.

Although the region's economies have delivered economic growth despite the crisis in the countries of the North, women continue to suffer the intersection of different forms of discrimination and they account for a rising proportion of those living in poor households.

The supply of paid work is regulated, among other things, by the negotiation that takes place within households on the sex and age distribution of unpaid reproductive work among household members. This distribution takes place through the allocation of time to unpaid and paid work: the individuals (mainly women) who take on unpaid work liberate potential workers from care responsibilities (ECLAC, 2012).

Total work time is measured through time-use surveys, which are both complex and costly. Nevertheless, most countries in the region already have some experience in this regard, and in several cases they have carried out more than one study in the past 15 years. In addition, a number of countries are performing calculations to estimate the monetary value of unpaid work.

Time-use surveys have helped to shed light on the burden of unpaid work that is shouldered by women. For example, in Mexico the economic value of unpaid work is equivalent to 21.6% of gross domestic product (GDP), with women contributing 78.3% of this figure.[1]

In the countries with available information, in terms of total work time —paid and unpaid work added together— women worked longer hours than men. Men devoted more time to paid work and women spent more time on unpaid work. Women worked longer daily and weekly hours than men in both cases.

Measuring and comparing the time men and women devote to care work has revealed new evidence of entrenched inequalities within households. In addition, time-use analysis has permitted an estimation of the economic value of care and its contribution to the wealth of countries, raising in the process serious questions in relation to the analytical gap of traditional economics in this area.

The average unemployment rate for women in Latin America is 7.9%, while the rate for men is 5.6%. Despite unemployment falling steadily in the region in recent years, and women demonstrating the willingness and the need to enter the labour market; remarkably, they still suffer from higher unemployment rates than men.

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[1] Data from the National Institute of Statistics and Geography (INEGI) of Mexico, 2012.

This means that women have more difficulty in finding a job and that, even in times of growth and prosperity, their labour-market status does not achieve parity with that of men.

It is also clear that women find themselves in more precarious jobs and with lower economic and social rewards in the labour structure. In terms of occupational categories, most men are in wage employment and they make up a much higher proportion of employers. By contrast, women account for a smaller share of wage employees with one in ten (10.7%) employed in domestic service. For men, this percentage is minimal (0.5%).

Panama and Mexico have the highest figures for female wage employees, followed by Chile and Argentina. The Plurinational State of Bolivia has the smallest proportion of female wage employees, accounting for just 39.9% of working women. It is also the country with the highest proportion of women (more than 10%) who report being engaged in unpaid family work.

While the category of own-account workers may relate to formal enterprises covered by social security, it generally refers to activities carried out by individuals on the informal market, with low protection levels and financial returns. Colombian, Nicaraguan and Peruvian women have the highest representation in this occupational category, with Colombia having a similar proportion of own-account workers and wage employees. At the other end of the scale, women account for a tiny proportion of employers in all the countries. Mexico reported the most women in this category, albeit still only 6%, while in the other countries the figure stood at 3% or less.

The services sector (including both financial and social services) employs 44.6% of working women in Latin America, compared with just 20.5% of men. At the reverse extreme of asymmetries, are construction and agriculture. One man in four works in agriculture, a sector which accounts for only one in ten working women.

B. Women in rural areas and indigenous women

1. Women in rural areas

There is a close link between women's employment status and rural poverty. In particular, a growing proportion of women are engaged in temporary work, noted for its lack of job security. While poverty has

fallen sharply since the 1990s, there remain significant geography- and gender-related inequalities, since women in rural areas have fewer job prospects, lower income, limited access to social security and an excessive burden related to the uneven distribution of domestic and care work, both within households and in society as a whole.

Women living in rural areas generally have less economic autonomy than those in urban areas. The proportion of women without an income of their own is 30.4% in cities, while this rises to 41.4% in the countryside.

In Latin America, women living in rural areas account for 9.9% of the total population. There are significant differences from one country to another, however. In Argentina, the Bolivarian Republic of Venezuela and Uruguay, rural women represent less than 4% of the population. At the other end of the spectrum, the figure exceeds 20% in Honduras, Guatemala and El Salvador. Honduras is a particularly striking case, since rural and urban women account for a very similar proportion of the total population.

Unfortunately, population projections and estimates on urban and rural segmentation are not disaggregated by sex in Caribbean countries, except in Haiti, where women in rural areas account for 25.8% of the population.

Generally speaking, rural women have more limited access to support networks and lower provision of health and care services. In addition, they often have to assume tasks inherent to the rural milieu, such as carrying firewood or water, and they have to cover longer distances, often without public transport services. They also lack infrastructure and technologies to help them with household tasks (electrical installations, sanitation and drinking water, washing machines and vehicles).

These aspects should be kept in mind when discussing and formulating public policies that include women living in rural areas, which should provide them with opportunities to fully integrate into the labour market and to access the benefits of development.

2.   Indigenous women

The region's indigenous population has a higher poverty rate and more limited access to public services, reflecting the persistence of significant inequalities related to ethnic origin. Illiteracy rates among indigenous women aged 15 and over can be four times those of non-indigenous women. In both urban and rural areas, indigenous illiteracy is more

common among women than men, and on average women receive fewer years of schooling. This social gap limits the potential for better labour-market integration among indigenous women. Low levels of education are at the heart of this problem, and must be addressed in order to close the gap, which is also a factor in social and economic discrimination and acts as an obstacle blocking the way out of poverty (Ortega, 2013).

Population censuses were used as the source of information on indigenous women. These databases provided the basis for calculating certain indicators that include the activities carried out by indigenous women in the region. The censuses used were those conducted in Colombia and Nicaragua in 2005, Peru in 2007, Brazil, Ecuador, Mexico and Panama in 2010, and Costa Rica and Uruguay in 2011.

Recent decades have seen women entering the labour market in growing numbers; however this has taken place in keeping with sociocultural structures which dictate that women are responsible for caregiving. Observing the type of jobs held by women, it is readily apparent that they are engaged in care-related work (such as health, education and social affairs in general) and less in technology-related fields, for example. They also work longer hours than men, earn less money for the same tasks, and experience greater stress in view of their overlapping responsibilities. Women living in rural areas and indigenous women face the additional disadvantages of remoteness, lack of transport and accessible communications, and multiple forms of discrimination rooted in ethnic and racial inequalities.

C. The gender digital gap: Internet access, use and skills

This section provides up-to-date (from 2010) information on the prevalence of Internet use among men and women in 10 countries, allowing a more inclusive and dynamic analysis of how the gender digital gap is evolving. It also analyses the determinants of Internet use probability, to identify the impact of gender on that probability after controlling for other individual traits.[2]

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[2]   For all purposes, the information used corresponds to microdata from nationally representative official household surveys conducted around 2009-2010. Indicators from around 2006-2007 were also examined to assess changes in Internet access and use over time.

The findings presented suggest that there is a persistent gender digital gap in Internet use that places women of all educational levels at a disadvantage. This gap is more prevalent in urban areas than in rural areas and tends to be wider in the middle and upper quintiles of the income distribution.

1.   The figures talk

The indicator on Internet access reveals striking differences between countries, ranging from 8.3% of individuals having household access in El Salvador, to over 38% in Uruguay.

Figure II.1
LATIN AMERICA (10 COUNTRIES): INTERNET USE BY SEX [a]
(Percentages)
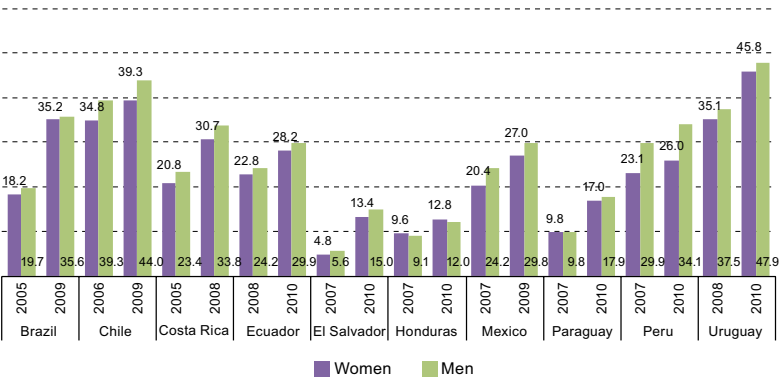
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys.

[a] National data. Rates of use refer to the percentage of men and women who reported using the Internet from any point of access in addition to the home (workplaces, educational establishments, community centres and others).

Disaggregated by gender, the data revealed interesting aspects for the study of the gender digital divide. However, male and female access rates were similar in all countries, since households, rather than their members, were taken as the unit of analysis for this indicator.

The data suggest that women are on a similar footing to men in terms of the infrastructure for household access. However, a gender gap begins to open up when considering rates of Internet use among men and women.

The data are eloquent in suggesting that women benefit from the advances of the digital society, but are lagging behind men in this respect. Nevertheless, if the differences in use are considered in relative terms, the simple average for the 10 countries shows that the female Internet use rate went from 11.1% behind the male rate to 8.5% in the last year with available information.

The findings indicate that, even without mass-scale digital policies incorporating gender perspectives, the general progress of ICTs is itself slowly reducing gaps relating to Internet use, albeit not in absolute terms.

The information given here was obtained by special processing of CEPALSTAT databases. The level of detail of the survey information varied between countries, meaning that not all of them could be included in the analysis. The countries examined were Brazil (2005 and 2009), Chile (2006 and 2009), Costa Rica (2005 and 2008), Ecuador (2008 and 2010), El Salvador (2007 and 2010), Honduras (2007 and 2010), Mexico (2007 and 2009), Paraguay (2007 and 2010), Peru (2007 and 2010), and Uruguay (2008 and 2010). With the exception of the data for Mexico, which came from a specific survey on ICTs, the information was drawn from household surveys that included questions on the access and use of ICTs by individuals and households. All surveys were nationally representative and also contained information on the characteristics of households and individuals (age, education, income, employment status and occupation, among others) as well as the questions on ICT access and use.

2. Digital natives and working women use the Internet more

Internet use was found to be more prevalent among employed women than among employed men, in all countries (except Peru). These data show that where women are successfully integrated into the labour market, for example as wage employees, they outpace men in terms of the percentage of those using the Internet.

The findings could suggest that ICT skills are a powerful tool for many women to successfully enter the labour market. Two situations experienced by women —a general, gender-based digital gap, and a higher rate of Internet use among wage employees— could suggest that there is a vicious circle: more limited ICT access and use adversely affect their chances of gaining employment while, in turn, the exclusion of many women from formal and wage employment tends to entrench the gap in ICT use.

3.   Exclusion of men and women living in poverty

There is substantial evidence that Internet use increases in line with household income levels. Nevertheless, broadly speaking, women in the upper quintiles appear to be more affected by the gender gap than those in the lower quintiles. In other words, the gender gap is narrower within groups in which the technology is less accessible, given that poverty limits the opportunities of both men and women to access and use the Internet. This phenomenon, whereby poverty affects both men and women and places them on a more equal footing, is not typical, since poverty makes women much more vulnerable than men in many other dimensions (use of time, violence, access to assets or credit, and so forth).

4.   More education, more Internet use

The high correlation between education and income makes it unsurprising that rates of Internet use increase among those with higher levels of education. While rates are higher among men than among women for all education levels, in this case the most notable digital divide occurs between individuals with primary education (complete and incomplete) and those who reach tertiary education, with the difference exceeding 50 percentage points.

5.   The gender digital divide is narrower in rural areas

Internet use is observed to be much more widespread in urban than in rural areas. In El Salvador, Honduras and Paraguay, rates are over five times higher in cities than in the countryside, while in Chile and Costa Rica the ratio is around 2.5, which is still significant. It is striking that the gender digital divide is tending to disappear in rural areas in all the countries except Peru.

D.   Concluding remarks

While female participation in employment has risen in recent decades, it has stagnated since the early 2000s and still leaves half of Latin American and Caribbean women outside the labour market. This has strong implications for women's economic autonomy, since it means they are unable to generate their own income; it keeps them in unpaid work and makes it very difficult for them to lighten their burden of family responsibilities in order to improve their well-being.

On the other hand, women face a number of pitfalls in the labour market which mean that they are only able to access certain areas of it. These pitfalls occur in spheres that are extensions of socially assigned tasks relating to care (education, health, and social services) and they appear to hamper women's progression towards leadership and management positions.

Women still constitute an overwhelming majority of those employed in domestic service. This is one of the sectors of the labour market with the least social security coverage and the worst conditions, with little regulation or oversight in most of the region's countries. One in ten working women is employed in this sector, where discrimination relating to migration (internal or external) or to ethnic or racial inequalities is commonplace.

The gender digital divide is more frequent in urban areas, where it is sharpest among older women of all education levels, including those with medium and high incomes. However, the gender gap is reversed among wage employees, with women having higher rates of Internet use than men.

Regarding the public policy implications, the findings suggest that the development of the information society benefits both men and women. However, given the substantial gender digital divide, it is of the utmost importance to tackle not only this gap, but also discrimination in the labour market, time use and access to income and assets, so that women as well as men can reap the benefits of the information and knowledge society.

Digital inclusion policies with gender perspectives are needed to enable men and women to access and use ICTs on an equal footing, and to make ICTs a tool for improving those areas where women are at a clear and persistent disadvantage to men.

III. Women in the digital economy

The technological revolution fuelled by information technologies is swiftly changing the material basis of society. Economies around the world have become interdependent, introducing a new relationship between the economy, the State and society. The social changes are as dramatic as the technological and economic transformation that is taking place (Castells, 1997).

In general terms, an analysis of the sectors of activity of Latin American economies shows that women tend to work primarily in services and commerce. This being so, it seems obvious to enquire into their working conditions. In order to understand the status of women in the digital economy and inform the debate on public policies that can improve their incorporation, three case studies from the world of work that have to do with the production and use of ICTs in the region were chosen.

First is the status of women workers in Brazil's electrical and electronics industry. The second case examines the working conditions of women in a classic ICT-based service: call centres. The third case study describes the situation of women using ICTs in production enterprises.

A. Opportunities or more of the same? Women in the electrical and electronic industry

Developing the electrical and electronic industry is, at least for some countries of the region, an important component of structural change because it means enhancing production structure efficiency. This growing

trend is borne out by the recent performance of the sector and the emergence of two global macrotrends: (i) the digital inclusion of a large contingent of the population that was outside the information society; and (ii) the increasing incorporation of electronics and electronic components in all other industrial goods, driven by innovation and new functionalities.

Brazil is, along with Mexico, one of the countries of the region with a major electronics industry. While all countries face the consequences of both macrotrends, those where this industry operates open up more job opportunities for women.

Foreign direct investment is pouring into Brazil's electrical and electronic sector and the government is deploying measures to ensure a spillover effect for the local electronic components subsector. Accordingly, the sector policy being implemented by Brazil (the Bigger Brazil Plan 2011-2014) or by any other country turning to such policies must consider the conditions in which women are entering the sector. The point is to protect them from potential job loss and prevent them from being sidelined from technological skills. Industry conditions should not limit use of women's labour to the stereotypical dexterity, coordination and concentration that automation and robotization are making more and more dispensable.

Prior research has explored the status of women in Brazil's electrical and electronic industry (Hirata, 2002; Oliveira, 2006) and highlights the flow of women into the sector. But not all of the findings are encouraging: while women are entering the formal labour market in a strongly trade-unionized industry, they are doing so in less-skilled areas and performing tasks that are more repetitive and involve lower levels of creative and professional performance.

With automation, companies have cut their workforce (Oliveira, 2006) and replaced many male workers with women while job content has diminished and work has been simplified. Technical maintenance tasks are performed by technicians and engineers (primarily men); more routine direct production tasks are performed by women. There is, unquestionably, a strong association between work done by women and Taylorized jobs. In Brazil's electrical and electronic sector[3] the workforce

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[3]   At present, Brazil's electrical and electronic sector seems to have a high percentage of women. According to data from the Inter Trade Union Department of Statistics and Socioeconomic Studies (DIEESE) and the National Confederation of Metalworkers of the Consolidated Workers' Union (CNM/CUT), in 2009 women represented 33% of the sector but earned 32% less than men on average.

has become highly feminized, but women have lower technology-content jobs. This also happened in the countries of South-East Asia in the early stages of structural change driven by exports of technology sector goods. In these countries, the trend is now towards technology intensification, and it is correlated with workforce defeminization in sectors with higher technology content.

1. Work in assembly plants

The technical division of labour at a company's plant entails three production areas: front end, back end and the corrective action request (CAR) area.[4]

Running through the technical division of labour is a sexual division of work (Kergoat, 2000): men are assigned tasks associated with production —which equate to functions with greater social and economic value— and women are assigned activities associated with or arising from reproductive roles. This form of social division of labour has two organizing principles: the principle of separation (there is men's work and women's work) and the principle of hierarchy (men's work is "worth" more than women's work). As with other forms of the social division of labour, the sexual division is neither rigid nor unchanging. While the organizing principles are the same, the modalities (such as the concept of reproductive work, women's place in paid work) vary greatly over time and from place to place. The importance of this notion is that the sexual division of labour can be changed through a variety of public policies, including labour and production policies based on an organizational and business analysis with a gender perspective, to promote transformation of the way that work is currently organized as well as the underlying assumptions.

Focusing on the work done by the women showed that they used the technologies with a purely instrumental understanding of the routine tasks they needed to perform. The operators do not necessarily know why or how the technologies they use for these tasks work: they push buttons, respond to audio or visual signals and insert parts of the devices by hand, with little or no room for generating incremental processes that improve their own work. The training they receive on the production line

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[4]   The technical division of labour is the breakdown of production tasks within a company into subsets of specialized tasks assigned to individuals or groups of individuals. In addition to the three areas mentioned, there are technical support tasks (engineering and maintenance).

is confined to a few minutes of explanations and guided practice, but involves no ICT-related skills-building.

Women are hired for specific areas, which become "women's territory", where the skills required for the post are defined as characteristics considered typical of women. This makes it supposedly natural and efficient for women to occupy these jobs.

Horizontal segregation and the assignment of tasks as intrinsically "female" put women at a disadvantage in the market. These patterns must be considered in the design of industrial production policies aimed at structural change with equality, with a view to changing them and distributing the ownership of digital production development between men and women.

B. The classic ICT-based service

The majority of employed women in Latin America work in the services sector. This document sets forth the case of workers employed in call centres in Panama, which has specific regulations to attract multinational firms to the country.[5] Call centre sector companies in Panama (most of which are subsidiaries of global firms) have established themselves as providers of offshore business services.[6]

Call centres base their productivity and competitiveness on different models of workforce organization. In some, the rule is speedy implementation of repetitive tasks and workforce management systems focused on strict control over workers with little scope for creativity. In others, "relational" work is the basis for negotiation interaction with clients. In the latter type, there are opportunities for career advancement, professional staff valued for their social skills, and male or female teleoperators who are independent and creative and have significant levels

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[5]   Call centre companies are exempt from direct and indirect taxes, contributions, charges, duties and fees, and they enjoy the benefits established by the Free Zone Act. According to labour regulations, export market fluctuations that lead to a considerable loss in sales volume provide justifiable cause for terminating an employment contract. In addition, by law, call centre activities may not suspended by strike action (See Law 32 on the establishment of call centres in Panama).

[6]   In addition to legislative incentives, Panama has significant advantages that attract call centres to the country. First, it has a strategic geographical location at the point of convergence of six fibre optic submarine cable consortiums, which facilitates communication. Second, the country ranks fifty-seventh out of 142 countries worldwide on the Networked Readiness Index (World Economic Forum, 2012), ahead of Brazil, Mexico, and Argentina, and it ranks fifth in Latin America.

of discretion in the performance of work and decision-making (Kinnie and Purcel, 2000; Del Bono and Bulloni, 2007).

Call centres are a highly feminized sector of the economy. According to the National Public Services Authority of Panama, the number of women employed in these firms rose from 47% in 2011 to 59% in 2012. A report prepared by the organization Forum Empresas (Feinberg and Koosed, 2011) on call centre work in Latin America found that, as with traditional assembly line manufacturing, in Latin American call centre operators are typically young and female. The same study found that in six countries in the region, women make up 71% of the call centre workforce.

The analysis of women's labour market participation conducted in Panamanian call centres shows that, although these women are in a technology setting which is emblematic of ICTs, they still encounter the usual barriers and discriminatory mechanisms that hinder their performance, such as relegation to positions with little responsibility, lower pay for the same work and fewer training and promotion opportunities. Like the electrical and electronics industry in Brazil, Panama's call centres show sharp labour segregation, both horizontal and vertical. The positions requiring more technological expertise are mostly held by men, and the positions requiring other skills, such as "social skills", are mostly held by women.[7]

As the interviews of male and female workers and human resource managers illustrate,[8] this situation is shaped by hidden mechanisms of discrimination based on gender images and stereotypes. There is an assumption that it is normal for men to occupy more highly skilled jobs with greater responsibility and higher pay, while women perform less technical jobs, with less responsibility and lower pay. These latter jobs are considered typically "female" owing to the social skills they require (such as being friendly and polite to customers). These skills associated with human relations are treated as innate, since they are acquired outside formal education and training, and so they are not considered in terms of qualifications or for the purposes of pay grade.

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[7]   The lowest position is that of a level 1 operator (or telephone agent), who provides basic customer care services. Level 2 requires more qualifications, because the services offered in this part of the call centre have to do with technical support. Level 3 is supervision (monitoring, training or managing groups of operators) and requires both technical skills and human resources management abilities. Women are overrepresented at level 1 and underrepresented at levels 2 and 3.

[8]   As an input for this document, an exploratory study was conducted in three call centres in Panama. The field work consisted of a series of interviews with operators, supervisors and human resources managers in the firms.

C.   Women entrepreneurs in the digital economy use ICTs

The present document analyses the opportunities created by ICT use in female-headed small firms and microenterprises.[9] Using ICTs can certainly help such firms to leave behind informal and precarious conditions and achieve stability, productivity and competitiveness.

Micro- and small enterprises are a major part of the economy of a number of countries of the region. In Peru's economy, for example, they account for 88% of private-sector employment and contribute 42% of GDP. Women make up 40% of the workforce in this sector and 57% of the informal workforce. Given the importance of microenterprises and small businesses, the Peruvian government has made it a priority to promote this sector and there is specific labour legislation promoting the competitiveness, formalization and development of these enterprises, as well as access to decent work.[10]

The project entitled "Innovative strategies for Peruvian women's participation in digital economy: a pilot program for women entrepreneurs" aimed to promote basic access to ICTs for women and improve the opportunities for them, especially in rural areas, to use ICTs as a tool in their businesses to develop their skills and improve their socioeconomic conditions. The project methodology consisted, first, of training in ICT use in business for Peruvian women entrepreneurs at the Sookmyung Women's University in the Republic of Korea. During a second stage, these women provided training in ICT use to other women entrepreneurs in Peru, in both urban and rural areas. The idea was to create a network of women entrepreneurs and a community of practice of women with ICT-intensive microenterprises and small businesses in Peru.

The entrepreneurs who took part in the project were interviewed by the Division for Gender Affairs of ECLAC. Although they were already using some of these technologies (such as mobile phones and the Internet) before receiving training, after the training sessions they began to more actively integrate other tools and possibilities for open access for the

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[9]   For this purpose, it discusses the case of Peruvian women who took part in a pilot scheme for women entrepreneurs conducted in 2008 by the Ministry for Women and Social Development (MIMDES) of Peru together with the Asian Pacific Women's Information Network Center (APWINC) and the Inter-American Development Bank (IDB). As an input for the present document, focus groups were organized with the women who participated in the project and received training in the Republic of Korea.

[10]   Legislative decree No. 1086 to Promote Competitiveness, Formalization and Development of Micro- and Small Enterprises and Access to Decent Employment.

benefit of their businesses. Many have expanded social networks and online sales capabilities. This tool has been developed primarily through the creation and use of online catalogues and shops. The women all agree on the importance of using ICTs to increase their opportunities and expand their markets and contacts, not only regionally but also globally.

The high proportion of women in smaller SMEs poses a challenge to changing the production structure. Small enterprises have become by definition a space for women. They make it easier for women to reconcile work and family life and, because the workplace is often the home, they help address the lack of public policies for redistributing care. Although such enterprises can help women achieve greater economic autonomy, they can also worsen overlapping work burdens and the imbalance between paid and unpaid work. They can also keep women in circles of small and microenterprises, outside broader sectors of the economy and the formal labour market.

ICTs can be powerful aids for women at the helm of small firms and microenterprises, because they open an array of possibilities for negotiating and marketing products. But this tool is not enough without the support of policies on access to credit, allocation of assets and training for business to be distributed equitably between men and women in the region. Women must cope with distance from commercial centres, insufficient assets of their own and lack of time, which places them at a clear disadvantage when it comes to making their business perform efficiently.

Used strategically, ICTs are tools that can help women-run businesses achieve higher growth and productivity. Accordingly, ICTs are a powerful tool for creating advantages and opportunities. ICTs enable women entrepreneurs, especially those living in rural or remote areas, to participate more actively in the market economy, to be more competitive and to use the digital economy for social and personal success.

D. Concluding remarks

In general terms, the status of women in the digital economy is governed by factors that make up the gender-based social inequalities that prevail in other areas as well. This is exacerbated in a context where full integration in the information and knowledge society is increasingly important for full

personal and professional development. Increasing numbers of women and men are exposed to the new tools of the digital economy and more demanding requirements for basic and advanced training and keeping up to date in the workplace. It is for this reason that the inequalities that now shape linkages with the labour market, and, more specifically, with jobs in the digital economy must be addressed; otherwise, the gaps women face will deepen and only some women will benefit from the new paradigm.

There is a sexual division of labour that reproduces in the labour market a certain hierarchy and allocation of resources that is not conducive to women's development. This is clearly seen in the fact that women enter at the less skilled levels and face greater difficulties in getting past certain thresholds, often associated with stereotypes that trap them in less qualified activities. Despite these characteristics, women have also had a positive experience with the use of ICTs for strengthening their enterprises.

Training and vocational training are undoubtedly a promising way to ensure quality jobs for women in these new scenarios, as it is necessary to build digital capacities and skills to ensure the integration of women in positions with more technological content. Nonetheless, it seems unlikely that this will happen if it is left to market forces alone, since the hegemonic gender system will tend to maintain the gender segregation that works for it. It follows that public policies on production should focus on gender inequalities and targeted mechanisms to address these inequalities in the sector.

When women have access to training in the use of ICTs for business, the results are successful. In the case studied, women have been able to identify development potential, expand their businesses and improve the outcomes. In this environment, training expanded the potential for production development in the framework of the digital economy. ICTs can be a powerful tool for women, because they offer an array of possibilities for them to negotiate, market and deliver their products. But this tool is not enough without the support of policies on access to credit, allocation of assets and training for business to be distributed equitably between men and women.

IV. Women in the world of science and knowledge

This chapter emphasizes the fact that women cannot participate fully in the information and knowledge society unless they have access to the professions associated with its main disciplines and the jobs that form its base, in other words, careers in science and technology and those linked with innovation. Science and technology is a highly demanding field commanding great prestige and social recognition. Careers in this sector are well paid and offer opportunities for personal development and participation in technological, economic and social developments in the academic and public policy spheres. By understanding the situation of Latin American and Caribbean women in the fields of science and technology, policies and good practices can be established to achieve gender equality in these areas and benefit scientific and technological development.

The analysis in the document emphasizes that many girls and young women in the region have the capacities and the talent to become highly skilled scientists and engineers, participate in technological innovation and contribute to development and general well-being. Yet they have fewer incentives and opportunities to obtain the education and information needed to pursue a career in science and technology, and the women who work in this field dominated by male roles, images, and stereotypes are less likely to be promoted, since women are more concentrated in positions at the lower end of the occupational hierarchy in national systems of science and technology (UNESCO, 2007).

Women in the region have gradually gained access to equal opportunities in education at different levels and more and more of them are earning university degrees and academic distinctions in various

science and technology disciplines (UNESCO, 2007 and 2012).[11] However, this is not translating into an equal increase in female participation in the science and technology workforce. The paths of men and women tend to diverge over the course of their careers inasmuch as women are promoted more slowly and leave jobs in science and technology more frequently to work in other fields. Women with the same level of education and academic training do not have the same work opportunities or the same professional careers and salaries as their male colleagues.

In most of the countries, the preponderance of women in university courses reverses at the early stages of the working career and divergence increases clearly with each step up the career ladder. Although more women are studying for postgraduate degrees, especially doctoral degrees, the retention rate for women falls as the research career advances (Estébanez, Defilippo and Serial, 2003; Rebufel, 2007).

This phenomenon has been described in the literature as the leaky pipeline, which means that the process of becoming a researcher, which consists of several consecutive stages of education and work, loses more women than men at each transition point from one educational or professional level to the next.

Women tend to be more sharply underrepresented in science and technology than in other professions, and engineering in particular has been noticeably resistant to change in gender ratios, despite several decades of efforts by the public and private sectors to promote the participation of women in the sector. This is also true of ICTs, a relatively young field that was initially expected to be less compromised by the traditional images, stereotypes and structures of gender discrimination that block the advancement of women in engineering and technology fields.

In 2012 ECLAC conducted a study on the labour trajectories of women in science and technology to explore the main barriers to career development. As part of the study, women researchers were interviewed from Argentina, the Bolivarian Republic of Venezuela, Brazil, Chile, Colombia, Mexico and Uruguay.

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[11]   The Latin American and Caribbean region scores highly in terms of women's access to education at all levels (UNESCO, 2012). The region has a high literacy rate, for both women (91.7%) and men (90.3%). Parity exists at the primary level, whereas at the secondary level enrolment is higher for girls than for boys: 107 girls per 100 boys. Female enrolment is higher at the tertiary level, too: 119 women per 100 men (Peña and others, 2012). A high percentage of women successfully complete their course of study at most Latin American universities; in fact, women make up over 50% of all graduates for some courses (UNESCO, 2012; Estébanez, Defilippo and Serial, 2003).

Most of the women interviewed said that there were gender barriers making it difficult for talented women to enter the scientific community, remain in it, see their work recognized and reach the top of their field. Among these barriers are:

- Work-family conflicts (motherhood and care work) especially at early stages of the career, when women in research professions are making their way into their career ("rush hour").
- Heavy male dominance of the power structure in science, which undermines meritocracy in the appraisal and promotion of women in research careers.
- The persistence of gender images and stereotypes which converge with organizational cultures and formal and informal rules and standards in the academic community (psychological barriers).

It was apparent from the interviews that female researchers in the region have few possibilities of ascending to the upper levels of the job structure and gaining senior positions or positions of power. Although women represent a high percentage of science and technology researchers in Latin America and the Caribbean, as compared with other regions, there remains an obvious gap in women's participation in research work in general and in the upper echelons, in particular. In Mexico the figures are 31% and 16% respectively; in Brazil, 38% and 25%, and in Argentina, 55% and 28% (Estébanez, 2007 and 2011, Sieglin, 2012; Pérez and Ruiz, 2012).

The breakdown of personnel by scientific category —level of seniority reached by the researcher in a specific system— is one of the main indicators of gender inequality in science. In all the countries, the most senior positions are held primarily by men, regardless of the overall proportion of women in any particular scientific system.

Women in science and technology encounter not only a glass ceiling —visible or invisible obstacles that keep women from rising to the upper rungs of the professional ladder— but also a sticky floor, the term used in the specialized literature to describe the difficulties that tend to keep women at the lower levels of the organizational pyramid.

The age at which men and women begin specialized training (doctoral and postdoctoral studies) coincides with women's childbearing years. This creates some of the most unequal conditions that women face in choosing a career in science. Although marriage and motherhood are often postponed in our societies, bearing children is a biological function that cannot be put off indefinitely. This is one of the main reasons why

they leave or postpone postgraduate studies. The science and technology systems in virtually none of the Latin American and Caribbean countries take this into account. As a result, there are few social or institutional mechanisms in place to enable women to pursue motherhood and childcare simultaneously with their academic training.

The document affords particular emphasis to the fact that the work-family conflict not only has a gender bias but is exacerbated by scientific institutions and, in particular, by a masculinized conceptualization of a career in science. This male conceptualization is reflected in the value placed on professionals who are constantly available and highly geographically mobile, in age barriers and time limits for gaining access to research financing, grants and tenure, and in the notion of uninterrupted scientific production prevailing in most schemes of evaluation, financing and promotion, among other things.

A. Concluding remarks

Although the number of women in jobs requiring ICT expertise is constantly rising, the same is not necessarily true of women in positions of decision-making and control of these resources. In the case of ICT-related careers, women are underrepresented in all decision-making structures at the global, regional and national levels, including policy and oversight bodies, the ministries responsible for science, technology and innovation or telecommunications, and corporate boards and senior executives (Primo, 2003).[12]

Science and technology professions appear to be less permeable than other highly skilled professions to the general trend towards a better gender balance. This state of affairs clearly runs counter to the scientific ethic of universalism and meritocracy. If universalism and meritocracy were the rule today, gender inequalities would be less sharp in science (European Commission, 2012).

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[12]   At the time of writing, these data were not available for the Latin American and Caribbean countries. In Europe (18 countries), women occupied only 9% of upper management positions and 9% of supervisory posts in the telecommunications industry in 2001. In the United States, in 2001, women occupied only 13% of upper management positions in major telecoms and electronics companies. In 2001 there were female ministers of communications or telecommunications in only three countries: Colombia, Mali and South Africa; and vice-ministers in another six: Angola, Belarus, the Czech Republic, Ghana, the Kyrgyz Republic and Tanzania. The literature indicates that without a critical mass of women in senior positions, it will be hard to effectively counteract practices of gender discrimination in this sector (European Database on Women in Decision-making, 2001; Jamieson, 2001).

One way of encouraging women's participation in science and technology is to increase the numbers of women studying these subjects in tertiary education, but until the female dropout rate from these professions decreases —or women are no longer forced to a standstill early in their careers— gender equality will not be achieved in this field.

V. Information and communications technologies: tools for achieving gender equality

Governments in Latin America and the Caribbean, international agencies and civil society organizations are becoming increasingly aware of the importance of information and communications technologies (ICTs) to economic and social progress, and as cross-cutting tools for achieving equitable and sustainable development and for promoting and protecting human rights. The extent of ICT access and use by the population, especially the most disadvantaged groups, is usually taken into account in development policies.

While the importance of the gender perspective is acknowledged in these policies, and awareness of the gender digital divide is shining a spotlight on the factors that require attention, governmental efforts have been uneven across the region. In many cases the gender digital divide is recognized, as is the urgency of overcoming it, but no concrete action is taken beyond a declaration of political principle.

Although there has been no strategic or coordinated action from governments, numerous ICT initiatives are already improving the lives of women on many levels, while also furthering the cause of gender equality. These initiatives are usually projects run by very different sorts of agents (public, private, civil society organizations, women's organizations and companies) at very different levels (international, regional, national or local). Machineries for the advancement of women have, in many instances, played a key role in these projects.

In general, these activities are either driven by a conviction that more women are needed in ICTs at all levels (as users, professionals, developers

or leaders) or are aimed at promoting more egalitarian values on the web. The ultimate goal, therefore, is to boost gender equality within the information society. A wide range of other initiatives actually use ICTs as a medium and are also going a long way towards improving women's lives, owing to their cross-functionality in myriad fields (including health care, education and combating violence).

All these initiatives represent a melting pot of ideas for tackling gender equality in the ICT field and present proposals for using ICTs as a tool for achieving gender equality. The number of these initiatives is rising and they must be given greater visibility and consolidated so they can gain strength and be replicated and transferred, thus producing a critical mass and placing the gender perspective on governments' digital agendas.

A.   ICT initiatives for enhancing women's economic autonomy

When it comes to the information society and gender, one of the key issues is increasing women's economic autonomy by exploiting the employment opportunities offered by today's digital economy.

ICT competency represents a key component of employability and a channel for social integration. Hence, major efforts have been made to provide ICT training, embedding it, for example, throughout the school curriculum and, in particular, setting up digital literacy programmes for groups that are unfamiliar with ICTs because of their age, educational level, economic stratum, place of residence or ethnicity.

A number of digital literacy initiatives have been designed specifically for women. These cater to their particular needs and focus on differential issues surrounding the use of ICTs, targeting training not only on the use of these technologies but also on other substantive matters (such as empowerment, communication, integration and rights). Examples include the Biblioredes programme run by the Department of Libraries, Archives and Museums (DIBAM) in Chile, the Ciudad Mujer scheme in El Salvador, and Spain's Hola Fabiola programme, which supports foreign, especially Latin American, women living in Spain.

Digital literacy is not the only way to improve employment prospects. Specialized ICT-based applications and tools, such as telecommuting, can also play a role. Telecommuting has made it easier to

juggle a career and a family, especially for women, but such arrangements do present some risks. For instance, maintaining a presence in the office is important in some business cultures, and the remote and isolating nature of the telecommuting option could prove an obstacle to career development and progression. In addition, there is a risk of intensifying the existing division of labour between men and women, reinforcing the idea that reproductive burdens are the exclusive domain of women. For these reasons, telecommuting must be carefully managed and regulated if it is not to become a source of further discrimination. Colombia, for example, has introduced special legislation to regulate telecommuting.

Apart from new modes of working made possible by ICTs, everyday applications such as e-mail, chat, video conferencing, file sharing systems and social networks are making a huge difference to the jobs of millions of men and women. The impact may be even greater for women, who can use ICTs to manage day-to-day arrangements for the work and the family simultaneously.

ICTs are also vital tools for the self-employed. E-commerce, business management and Internet marketing are all solutions that can generate significant benefits in all areas of business. The integration of ICTs and women's entrepreneurship are regarded as priority strategies, although the specialist literature finds that women's businesses tend to be less dynamic and concentrated in sectors with less value added than male-run businesses. They generally operate in local markets and have little ICT integration. The incorporation of technology therefore opens up endless possibilities for small and medium-sized enterprises (SMEs) run by women, and any government strategy that promotes the digital inclusion of SMEs could be an extremely important way of supporting women's economic empowerment. Several interesting projects in the region are aimed at the digital inclusion of women at work. These include the ICT training provided by the Central American Integration System (SICA), the strategy developed by the National Women's Institute of Mexico (INMUJERES) to dissemination information on economic development, and a project in the Dominican Republic aimed at overcoming stereotypes, helping more young and adolescent girls develop an interest in mathematics and science through clubs named "Supermáticas" and "e-Chicas", and closing the country's gender digital divide.

B.   ICT initiatives for improving women's well-being

Using ICTs to enhance women's autonomy by raising their professional standing in the digital economy is by no means the only way that these tools can contribute to the advancement of women in Latin America and the Caribbean.

Technological tools and solutions offer considerable scope for improving women's well-being, as evidenced by the multitude of technological applications in key areas such as education, health care and preventing and combating gender-based violence.

In the area of education, distance learning and e-learning systems offer training to a wider range of people, who, for various reasons (family commitments, place of residence or lack of resources), find it very difficult to attend traditional face-to-face courses. Distance learning is booming; it is now being used by both formal and informal educational establishments, and is able to cover any topic or type of educational material. E-learning initiatives have thus emerged that target specific groups of women. Examples include Proactiv@s in Ecuador, the telemedicine project in Alta Verapaz (Guatemala), WawaRed in Peru, the TICBolivia network in the Plurinational State of Bolivia, Cuba's Contracorriente project and the Network to Combat Violence Against Women in Brazil.

C.   ICTs for promoting gender equality

The third area where ICTs can contribute to gender equality is in the consolidation of structures, channels, organizations, consultations, messages and capacities that have a gender perspective, using ICTs to make strides towards gender mainstreaming, strengthening public services and transforming the Internet into a place for sharing and fostering more egalitarian ideas and attitudes.

The huge potential of ICTs in this regard has not gone unnoticed. Many websites and applications have been created to heighten public awareness, communicate on matters of equality and provide training. Most of these have been developed by international organizations, machineries for the advancement of women and women's organizations working towards these goals.

This study looked at a number of the websites specializing in the generation and dissemination of knowledge on gender relations. They boast repositories of documents, libraries, discussion forums, web links, methodologies and databases, all of which can be accessed by students, researchers, technicians and State professionals.

The Gender Equality Observatory for Latin America and the Caribbean is an analytical and statistical tool implemented by the Gender Affairs Division of ECLAC, in collaboration with the United Nations Population Fund (UNFPA), the Pan American Health Organization (PAHO), UN-Women, the Spanish Agency for International Development Cooperation (AECID) and the Ibero-American General Secretariat (SEGIB). The Observatory has followed up on the agreements adopted in the Quito Consensus (2007) and the Brasilia Consensus (2010). The Observatory has analysed trends at the heart of gender inequality in the areas of physical autonomy, economic autonomy and autonomy in decision-making, using a selection of indicators and the analysis of public policies linked in turn with the Millennium Development Goals and implementation of the Convention on the Elimination of All Forms of Discrimination against Women.

Other examples include the *América Latina Genera* portal, the CDMujeres project, the Nicaraguan organization *Puntos de Encuentro*, and the Uruguayan feminist collective *Cotidiano Mujer*.

D. Concluding remarks

ICTs are not only important potential allies for furthering the advancement of women and gender equality in the world and in the region, but they are in fact already having an impact: many public bodies, associations, universities and firms are using them in pioneering, purposeful and inspiring ways to promote, manage, share and multiply "e-equality".

While still lacking organization, these initiatives are much more numerous and powerful than they at first seem and they will no doubt be influential in the bid to build an information and knowledge society that encompasses and promotes equality.

But, to achieve this objective, this new territory must be populated with far more strategy, pedagogy, investment, initiatives, innovation, networks, commitments and partnerships, so that gender equality can

be firmly situated in the world of technology, and technology in the world of equality.

In addition, the initiatives already under way need to be stronger and more sustainable, which will involve increasing their visibility and their financial resources, bringing them together in the form of communities that generate significant critical mass, and including them at the heart of Latin American and Caribbean digital agendas.

Comprehensive strategies must thus be established in public policies (as has already been done in some countries) that support the full inclusion of gender in the information society, and that respond to a drive towards new and ambitious measures in areas such as: encouraging women to pursue technological and scientific vocations; actively promoting female technological entrepreneurship; creating new online content and media for the development of micro-, small and medium-sized enterprises headed by women; the technological modernization of economic activities and sectors that are primarily made up of women, all of which are crucial to social well-being (health, education, services and care); the digital inclusion of the most at-risk groups of women and those who have the least contact with technology; promoting women's participation in the decision-making areas of the ICT sector; expanding women's role in social networks; strengthening the ICT profile of machineries for the advancement of women and pro-equality organizations; communicating egalitarian values over the Web; and combating digital content that denigrates women.

It is clearly necessary to promote the expansion of the mobile information society, actively including women as key beneficiaries and protagonists of this new technological revolution which more than any other, is inclusive of the majorities. Solid links must be forged between all types of agents likely to promote e-equality in the region: machineries for the advancement of women, bodies responsible for sectoral ICT policies, women's associations and companies in this sector.

With this outlook, it is much more likely that a handful of initiatives —worthwhile, but still few and far between— can be rapidly stepped up and transformed into an ambitious policy for an equality-based digital economy with discernible results.

VI. Digital agendas and the gender perspective

The public policy challenge for the information society from a gender perspective is twofold: steps must be taken, on the one hand, to seize the opportunities afforded by the digital revolution and, on the other, to minimize the risks of women falling behind. The challenge is political as well as technological, and success will depend on the willingness to implement digital strategies to mainstream the gender perspective, taking advantage of the new options offered by ICTs for pushing forward the gender equality agenda.

The Latin American and Caribbean region has made strides towards the information and knowledge society. Most of the countries in the region have drawn up national agendas or, at least, major sectoral ICT policies. Thus, the region now boasts very interesting experiences on digital inclusion, telecommunications infrastructure expansion and public services and education upgrade. Access to mobile communication devices and Internet have yielded positive results and have been invaluable in enhancing conditions for the population as a whole, modernizing public administration and, albeit to a limited extent, boosting the competitiveness of Latin American and Caribbean economies.

In the region, policies for digital inclusion and for promoting dissemination of ICTs in education and public services have actually benefited women as well as men. However, gender asymmetries that hamper women's full participation on an egalitarian basis in the information society suggest the need for a specific, active and cross-cutting approach to gender equality in digital agendas.

A. Digital agendas as an instrument for promoting the digital economy and advancing equality

1. Creating and developing digital agendas in Latin America and the Caribbean

Over a decade ago, the countries of the region started to design and implement digital agendas, which have since been strengthened by the two phases of the World Summit on the Information Society (held in 2003 and 2005) and by the inclusion of ICT issues in the United Nations Millennium Development Goals.

In this context, the governments of countries in the region adopted the Plans of Action for the Information Society in Latin America and the Caribbean (eLAC 2007 eLAC 2010) and the current Plan of Action for the Information and Knowledge Society in Latin America and the Caribbean (eLAC 2015). The different eLAC plans advocated developing and strengthening national e-strategies and reflected the broad consensus concerning the relevance and advisability of formulating public policies for ICT dissemination and active integration of the region into the information society.

Between the late 1990s and mid-2013, most of the countries in the region had adopted at least one national e-strategy document and had implemented different ICT policy initiatives (ECLAC, 2013b).

These political efforts have been embodied in a number of initiatives. Advances in ICT access and use by citizens, especially in schools, or the success in improving the efficiency and transparency of public management are well known. A number of exemplary initiatives have been launched in the region in recent years. They include Argentina Connected and Connecting Equality in Argentina; the National Broadband Plan in Brazil; the Enlaces Programme and Chile Compra in Chile; Vive Digital strategy and the online government programme launched in Colombia; the National Strategy for the Information Society (e-Dominicana) in the Dominican Republic; and the Ceibal Plan in Uruguay.

2. Evolution and areas covered by digital policies

The ICT programmes and projects implemented in the region fall into two different categories depending on the intensity, degree of dissemination

and complexity of the national and sectoral ICT strategies. The first covers the period from the late 1990s to 2006. The second period runs from 2007 to the present. The differences observed relate both to the diversity of areas covered by the policies and to the number of initiatives under way during each period. This shift towards more complex policies was strongly influenced by technology cycles, in particular by the development of Internet, which originally allowed for relatively limited use, but with the incorporation of broadband expanded to multiple uses and applications. This process has also been influenced by the wider experience with ICTs as a target for regional and global public policies.

The main ICT strategies formulated and executed in the initial period sought to reduce the digital divide, in terms of both access and use. In parallel, the governments promoted ICT adoption at the State level and in the education sector, and some countries developed initiatives in other spheres, such as promotion of the ICT goods and service providers sector. The policies designed to reduce the digital divide were directed mainly towards improving telecommunications infrastructure, installing shared Internet access points, generating utilization capacities and boosting the information technology infrastructure.

In the second period, from around 2005 to the present, information society policies in the region have achieved a wider dissemination and have become more complex, encompassing new areas of action. As in the past, the main initiatives seek to expand crucial infrastructure, but also to promote its use and adoption. Sectoral strategies have included new initiatives (such as the "One Laptop Per Child" or "1:1" programmes in education or open government through e-government), and gradually new areas of action, such as e-health. In some cases initiatives geared to promoting gender equality have been included. During this period's ICT strategies, the initiatives centred on the roll-out of second-generation broadband.

In the recent period, ICT strategies have been consolidated thanks to national broadband plans that were first drawn up towards the end of the first decade of the 2000s and which were characterized by an integrated approach bearing in mind not only connectivity but also use and appropriation, in addition to the expansion of the range of applications. The National Broadband Programme of Brazil was the first such initiative in the region. Other countries gradually drew up their own

strategies for broadband expansion. They include Argentina (National Telecommunications Plan: Argentina Connected); Chile (Todo Chile Comunicado); Colombia (Vive Digital); Costa Rica (National Broadband Strategy); Ecuador (National Broadband Plan); Mexico (Programme for Strengthening Broadband and Information and Knowledge Technologies), and Peru (National Broadband Development Plan). In terms of digital literacy programmes, new and more targeted efforts have been introduced, such as the Vasconcelos 2.0 National Digital Inclusion Campaign in Mexico, designed for adults who have not had any access to technology previously.

B. The gender perspective in digital agendas in Latin America and the Caribbean

This section reviews policy documents on which the strategies are based to determine the extent to which the gender perspective is mainstreamed into the digital agendas of selected countries considered representative of the situation in the region.[13] More detailed examples are also provided of the inclusion of the gender perspective in digital policies in the region (Camacho, 2013).

1. General Balance

The analysis of gender mainstreaming in the selected digital agendas considers references to gender issues, especially to specific initiatives for promoting gender equality and greater participation by women in the digital ecosystem, in the different policy areas.

The digital policy documents refer to gender mainstreaming in discursive statements and most treat it as a major explicit aspiration. Three basic approaches are identified: (i) The need for an equitable participation of men and women in the information society; (ii) ICTs as tools for achieving equity; and (iii) ICTs as tools for reducing gender violence. Only in rare cases, however, does this conceptual recognition filter through to policy initiatives.

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[13]   The countries examined are Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Mexico, Paraguay, Peru and Uruguay.

2. Digital Ecuador Strategy 2.0

According to data from the Survey on Employment, Unemployment and Underemployment conducted by the National Statistics and Census Institute (INEC) of Ecuador, in 2011 37.5% of Ecuadorian women had access to computers and 34.2% access to the Internet, in both cases slightly less than the corresponding figure for their male compatriots. Furthermore, 38.8% of women were computer illiterate.

The same survey showed that among Ecuadorian women who had tertiary education, only 7% had qualifications in technical areas. Of all the women working in the telecommunications and ICT sector, approximately 80% are employed in administrative areas, while in technical fields women occupy just 16.2% of executive positions and 12.2% operational positions.

These are a few data that illustrate the gender digital divide, which was the backdrop for the launch in 2011 of the Digital Ecuador Strategy 2.0. This programme, which falls under the Ministry of Telecommunications and the Information Society, includes four main lines for development of the information society: equipment, connectivity, training and applications and content.

As part of this project, an Infocentre was inaugurated in the Female Social Rehabilitation Centre of Quito in May 2013 following an agreement by the Ministry and the telecommunications operator. This initiative provides a place for participation and access to ICTs and the fundamental objective is to improve the quality of life of incarcerated women through digital inclusion, and to stimulate the use of ICTs as tools for interactive learning and e-learning.

3. Digital Agenda of Mexico

Recent surveys show that the gender difference in computer and Internet use in Mexico is minimal, with 51% for men and 49% for women.[14] This parity is not, however, matched by greater empowerment for women in areas such as education, science, technology or employment. Women represent more than half of the population in Mexico; however they do not account for the same percentage of the student body, of decision-makers or of the labour force.

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[14] This information is based on the April 2012 National Survey on Availability and Use of Information Technology in Households, conducted by the National Institute of Statistics and Geography (INEGI), and on the survey of Habits of Internet Users in Mexico, conducted by the Mexican Internet Association (AMIPCI).

Moreover, the growing presence of women in tertiary education contrasts with their limited participation in science and technology, which are key areas for the development of a knowledge society. In terms of percentages, the main areas of study chosen by women tend to be education and the humanities, health sciences, social sciences and administration. Women account for just 31% of all students enrolled in the fields of engineering and technology.

4. Digital Strategy Dominican Republic: e-Dominicana

In the Dominican Republic the gender divide persists in terms of computer use and, above all, access to Internet. Women accounted for 64% of the university student body in 2009 but for less than 50% in basic sciences and ICTs. In ICT careers, the proportion of women was 43%, but the percentage of males was high in all careers except computer engineering. Although women account for 51% of total employment in the ICT industry, there is a high level of sexual segregation in the labour market, with women underrepresented in the most senior decision-making posts. Women are also underrepresented in professional science and engineering jobs, especially in ICT-related occupations, such as software and multimedia developers and analysts (CIPAF, 2011a).

In 2004, the Dominican Republic formulated its first National Strategy for Information and Communication Technologies for Development, referred to as e-Dominicana, under the coordination of the Dominican Telecommunications Institute (INDOTEL). In 2005, a second version was launched entitled "e-Dominicana: Navegando hacia el futuro" (e-Dominicana: Surfing towards the future)" (CIPAF, 2011b).

The National Commission for the Information and Knowledge Society (CNSIC) is the coordinating body for that Strategy and is chaired by INDOTEL and made up of stakeholders from the Government, the private sector and civil society.

According to CIPAF (2011b), the first version of e-Dominicana included gender equity as one of its priority areas and defined specific objectives and projects for skills-building, bridging the digital divide, developing ICT applications and creating content. The second version (2005-2010), on the other hand, defined more general priority objectives.

C. Towards more integrated, gender-sensitive digital agendas

The foregoing sections have presented the digital policies being implemented progressively in the countries of the region and underscored the substantial impact they have had on development and on the digital inclusion of women and men alike. However, despite the persistent gender gaps and the positive impact that digital strategies could have on women's participation in the design and construction of the information and knowledge society, in most cases, no specific measures have been adopted to mainstream the gender dimension in these policies.

In this context, some national experiences, such as those of Dominican Republic, Ecuador and Mexico, attest to significant progress in affording gender issues due importance in digital strategies. The actions of these countries are in line with the consensuses reached under the Plan of Action for the Information Society in Latin America and the Caribbean (eLAC), and the Plan of Work 2013-2015 for the implementation of the Plan of Action on the Information and Knowledge Society for Latin America and the Caribbean (eLAC 2015). Under the section on relevant and emerging issues, this Plan proposes: "taking steps to mainstream the gender perspective across all policies designed to close the digital divide and promote the generation of statistics and information on the gender gap and the differentiated impacts of ICTs".

One of the main lessons learned from the most advanced experiences within the region, as highlighted in this chapter, is that gender equality policies must be brought into line with the digital strategies at the local and national levels. In other words, policies for equality in the information society must be promoted and articulated (by the governing bodies responsible for equality policies) and the same must be done with digital policies in relation to gender equality (by the agencies responsible for digital agendas). The aim must be to guarantee gender equality in the information society and, at the same time, to use ICTs as tools towards this end.

International best practices illustrate the importance of this coordination and, more generally, underscore the relevance today of mainstreaming the gender approach in digital agendas.

D. Concluding remarks

Naturally, the development of gender proposals within digital agendas, and the inclusion of an ICT agenda in policies for equality, is not a task for a single State actor but must represent a convergence of efforts, resources and sensitivities from the various public stakeholders involved in issues such as innovation, ICTs, equality, education, health and employment. Moreover, the process must be open to civil society, academia and the private sector.

The ultimate objective is to help to bridge the gap between men and women in the construction of and participation in the information and knowledge society; to this end, the gender perspective must be effectively mainstreamed into digital strategies both in terms of their overall and sectoral objectives and in relation to the different lines of action and the indicators necessary for monitoring them.

Overall conclusions

Development strategies based on structural change, that is, on diversification of production with greater incorporation of knowledge and innovation, should enable the countries of the region to achieve sustainable economic growth and a more inclusive form of development, expanding opportunities for equality between individuals. A number of studies have demonstrated that new technologies, in particular ICTs, are an important vector for transforming social, economic and political life around the world. They open up new economic and employment opportunities, and many countries in the region are well positioned to leverage the advantages they offer to accelerate their development processes based on structural change.

The impact of ICT use on gender equality has been mixed. While there have been advances in this direction, long-standing inequalities persist and new ones are emerging that reveal advances and setbacks, impediments and resistance to change. This study places the focus on the relationship between the information society, the economic autonomy of women and gender equality, showing that:

1. ICTs can have a positive impact on growth and productivity in female-run businesses, opening up possibilities for new ways of negotiating and marketing their products, enabling them to participate more actively in the market economy, to be more competitive and to use the digital economy to fulfil their rights and achieve personal well-being.

2. In the digital economy, as in other development paradigms, opportunities are not distributed equitably between countries

or individuals. The asymmetries thus developed must be tackled with specific policies. The gender order whereby women remain overwhelmingly responsible for unpaid work and caregiving in the home intersects with the new ways of organizing the global economy. Due to the slowness in closing gender gaps, especially as regards ICT-related employment, the digital divide could actually deepen, even though the population excluded from the information society is decreasing.

3. Women still have to contend with multiple forms of discrimination, and still account for a high proportion of those living in poor households. The poverty femininity index for persons between the ages of 20 and 59 shows that in all the countries of the region, more women than men in this age group live in poor households and that, while female participation in the labour market has increased, it has not changed since the first few years of the twenty-first century and half of Latin American and Caribbean women still remain outside the labour market.

4. While as many as 30.4% of women living in urban areas in the region have no income of their own, the figure for rural women in the same position is 41.4%, a difference of 11 percentage points. In terms of integration into the labour market, the activity rate of women living in rural areas is over 40%, which points to the significant presence of women in the labour market, although the activity rate for men in rural areas is more than double at 83.7%.

5. Women do not have the same working opportunities or the same career path or wages as men, even if their level of training and their academic qualifications are the same. In terms of job quality, women in ICT-related economic sectors face strong gender-based occupational segregation and their work is undervalued. The adoption of new technologies has not significantly altered the structure of gender-based occupational segregation. It has even created new divisions within some occupations. Although women's educational achievements surpass those of men, patterns of horizontal and vertical segregation are being reproduced which concentrate women in given occupations, generally identified as "women's jobs", relegating them to lower-paid positions that require less technological skill.

6. Small and, above all, micro- enterprises have become an option par excellence for women, because they offer greater opportunities to reconcile paid work and family responsibilities —although often the agents that provide business start-up facilities and small business loans do not recognize women as their main target group. Since, in many cases, the workplace is the home, this has an impact on women's productivity and reproduces the sexual division of labour relating to care and the burden of domestic work. Women's strong participation in micro-enterprises and SMEs is a manifestation of inequality and poses a challenge for structural change based on new technologies. The opportunities that these enterprises provide cannot be fully leveraged unless policies on access to credit, distribution of assets and business training are distributed more equitably and are adapted to meet the needs of women.

7. Studies highlight the fact that girls and young women have less chance than men of receiving the education and information necessary for entering a career in science and technology. Moreover, women who do work in this field dominated by masculine roles, images and stereotypes have fewer chances of being promoted, since they tend to be concentrated in the lower ranks of national science and technology systems. This is due to asymmetrical power relations between men and women, historically entrenched in hegemonic gender systems which are reproduced in the family, schools and the labour market.

8. Development policies in general and production policies in particular cannot be neutral. Just as they must take into account inequalities between countries and between economies, so they must also consider and do away with the gender inequalities in the way women participate in society, the labour market and the family. Clearly, there are numerous initiatives geared to ICT dissemination and use in a broad range of areas which contribute in a positive manner to the advancement of women and of gender equality in the region. It is not simply a matter of public policies but also of projects implemented by associations, universities and businesses. But at the same time, those efforts must be strengthened and given a more strategic and pedagogic approach. They need more investment and innovation and a commitment to the achievement of genuine gender equality within the framework of the information and knowledge society.

Such policies cannot be limited to specific areas, such as access or digital inclusion. The gender perspective must be mainstreamed throughout digital strategies in order to narrow the various gaps identified (in ICT literacy, use, training and appropriation, and in science and innovation, self-employment and other spheres of the digital economy) and all those areas in which girls, adolescent girls and women face specific problems, disadvantages or discrimination.

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Prepared by ECLAC for the twelfth session of the Regional Conference on Women in Latin America and the Caribbean, this document systematizes and describes various dimensions that shape the way the region's women participate in the labour market, and how they access and use the different elements of the digital economy.

Information and communications technologies (ICTs) provide essential support across all economic, political, cultural and social activity, as well as being a production sector in their own right. As such, they are potential allies in the drive to achieve equality by helping reduce the gender inequities which constitute not only a gender digital gap but also a social divide.

Public policies on gender equality must take into account the key and interconnected dimensions of economy, well-being and technology if they are to be capable of providing an ambitious and innovative response to the challenges of today's society. The core argument in the reflection on ICTs and gender equality thus has to do with how women engage in processes of change and sustainable development in the countries, which cannot be achieved without equal participation by men and women.

From this perspective, the gender digital gap offers a specific opportunity to tackle gender inequalities in the region.