

Women's access to ICTs in the information society

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ICTs and the information society

In contemporary life information has become a primary good, essential for daily activity in what is called the Information Society (IS). Information and communication technologies (ICTs) are also key drivers for knowledge, productivity and power. Academic literature highlights the positive effects of being able to use computers and the internet, as it helps individuals improve their social relations, language and mathematics skills, academic records and success in finding a job. Concern exists also about the rise of digital divisions as a barrier to the development of an equitable IS. If factors exist that slow the incorporation of these innovations by the public, economic, social and individual welfare will be negatively affected (Brynin, Raban and Soffer, 2004; van Dijk, 2005; Korup and Szydlík, 2005; Hilbert, 2011).

The concept of the digital divide (OECD, 2001) is key to understanding the social justice implications of unequal access to ICTs. The gap between individuals – but also households and geographic areas – that take advantage by accessing and using the internet and those who are in a position of relative disadvantage, is related to the knowledge divide: as the diffusion of ICTs spreads over the whole population, groups with higher socioeconomic and education levels tend to benefit from information at a faster rate than those at lower levels; so, the divide or gap between them tends to increase rather than decrease (Rogers, 2003). The core question related to access to digital networks is who gets empowered and who is informationally marginalised by the use of these new tools (Hilbert, 2011).

As a research topic, the digital divide is multidimensional and covers a wide range of issues (van Dijk and Hacker, 2003; OECD, 2007; Dutton and Helsper, 2007; Castaño, 2008). Policy is interested in the magnitude of the digital divide and, more importantly, its evolution – whether it is closing or widening over time – and at what speed this is happening. The early approaches focused on ICT connectivity, with emphasis on improving infrastructure and physical access; but, while the most obvious access divide appears to be closing, other more subtle inequalities are emerging. These relate to the speed, availability and quality of access – speed and bandwidth; mobile internet, abilities and skills to use the internet effectively, and the way internet use affects access to goods and services (Liff and Shepherd, 2004). The digital divide is also dynamic in itself, with the internet continuously being reconfigured with new applications, new devices and opportunities for access. The delays in adoption and the inequalities in use are associated with patterns of advantage/disadvantage between social groups and may significantly exacerbate current social inequalities (Bimber, 2000; Rogers, 2003; van Dijk, 2005; Hilbert, 2011).

The gender digital divide

The analysis of gender differences and discrimination with regards to the diffusion of ICTs is strategic not only for reasons of equality and social justice; as women represent more than half of the world's population (therefore, they are not a disadvantaged collective), their access and whole incorporation into the IS is important for economic growth and social welfare.

The concept of gender is key to understanding differences and inequalities between female and male users concerning ICTs. Gender is a social construct that assigns different roles and patterns of behaviour to women and men; these roles influence wishes and expectations in the choice of studies or career, employment, leisure and time management. Gender differences are also determinant in terms of responsibilities, barriers and opportunities for both sexes over the life course. Differences in internet use between men and women therefore cannot be considered a mere result of the free choice of the individuals, but rather depend on a whole set of expectations and social restrictions – maternity and care, gender prejudices and stereotypes, among others (Castaño and Webster, 2011).

The concept of the gender digital divide refers, then, to the structure of opportunities, cultural attitudes and skills related to the use of ICTs. These factors are influenced by age, education, employment and economic resources, as well as by other complex situations that arise as the different stages in the life course

flow, the effects of domestic responsibilities or the use of time come into play (Helsper, 2010; Castaño and Webster, 2011). Kennedy, Wellman and Klement (2003) statistically demonstrate the influence that women's limited availability of time has on their access to the internet. Hargittai and Shafer (2006) insist upon the impact that differences in the availability of leisure time have on the intensity of use. Studies by the OECD consider that the incorporation of women into the internet community in smaller numbers is related to their lower rate of activity and employment, and that they are involved in greater number in activities and professions (education, health, social services) that rely less on computers (OECD, 2007). Another important factor is the lower level of computer and internet skills among female users compared to male counterparts, which makes it hard for them to obtain the maximum benefit from ICTs (Castaño, Martín and Martínez Cantos, 2011; Martínez Cantos, 2013).

Old and new gender digital divides

The gender digital divide represents, on the one hand, the continuity of old inequalities between men and women and, on the other hand, the emergence of new and specific forms of inequality. Literature on this topic (DiMaggio and Hargittai, 2001; Castaño, 2008; Korupp and Szydlík, 2005) distinguishes between two main dimensions of the gender divide. The first digital divide refers principally to the differences between men and women in terms of access to computers and to the internet. Literature and empirical research show that while these gender gaps are narrowing, gender differences are emerging with regards to perceived performance, usage patterns and related interests. In this line, the second digital divide focuses on the different usage patterns of ICTs as well as the differences in digital skills and performance

The map of uses of women and men makes clear that the sexual divisions of labour that exist in society are transferred to virtual reality (Kennedy, Wellman and Klement, 2003; Sáinz and González, 2008; OECD, 2007). According to data from the OECD and Eurostat, in most countries women score almost like men in uses related to communication; on the other hand, men far outnumber women in most actual applications in technology and leisure activities (software, music, movies, games, sports) while women outnumber men in information searches about health, education and training, activities for family and care (OECD, 2007; Observatorio e-Igualdad, 2011). Hilbert (2011) confirms a similar pattern of behaviour for 12 Latin American countries with data from the Observatory for the Information Society in Latin America and the Caribbean (OSILAC).

Another gender gap exists with regards to computer and internet skills. Using data from the Eurostat Community Survey of ICT Use in Households and by Individuals (2007-2011) the Observatorio e-Igualdad (2011) examines the list of computer and internet tasks performed by internet users in the 27 European Union countries, including the Nordic countries. It shows that differences between men and women are small when it comes to more simple and frequent tasks (copying folders, cutting and pasting in a document, using search engines, sending emails with files) while women lag behind when it comes to more complex skills (sharing peer to peer, downloading software, creating web pages). Their analysis shows that age or education do not reduce the size of the gender skills gap as could be expected (Castaño, Martín and Martínez, 2011).

Martínez Cantos (2013), using data from this same source for 2006-2011, performs cluster analysis to compare men and women with equal conditions of age, education and employment. His results confirm the persistence of gender gaps in the adoption of new mobile devices, in the performance of certain specialised tasks and in internet usage patterns. And this happens even in countries with the highest levels of ICT penetration, also for the young population groups, at higher levels of education and in populations with white-collar jobs.

Future outlooks

The outlook of women with regards to ICT and IS has a positive and a negative side. The positive one is that the number of female internet users is constantly increasing worldwide. The use of ICTs improves the position of women in the labour market. Telework and self-employment on the internet are attractive alternatives for women to combine employment with family responsibilities.

The negative side is that, despite the increased number of users, the second gender digital divide persists and women are relegated to certain economic activities and occupations, while men dominate the strategic areas of education, research and employment related to ICTs. But computer and internet skill are key for women in order to get better jobs, as well as for self-employment and entrepreneurship.

Although women progressively make use of all the ICT devices and internet services, it seems that men always get the newest and more innovative devices and services in advance and in greater numbers than women. By the time women gain mass access to the new devices and uses, the technological boundaries have shifted, to a new area, which men already dominate.

Concern about the participation of women in ICTs exists among public authorities in the United States, the European Union, Latin America and the Caribbean with regards to the gender digital gaps and to the stagnation, and even the reduction, in the percentage of women who undertake computer and engineering degrees. The gender digital divide is also present in the small proportion of women who work in the ICT field, as creators, innovators or in relevant positions (Cohoon and Aspray, 2008; EC, 2008; Peña, Goñi and Sabanes, 2012; Castaño, 2010).

Actions

Digital divisions look like technological divisions, but are in fact social divisions. So, the policies for gender digital inclusion shouldn't concentrate only on providing access, but on increasing women's skills and abilities to allow appropriation – taking, seizing and shaping – of ICTs for their personal and professional development. This is a complex social process involving education, work and leisure, and many other domains, that cannot be left to market forces alone. Public authorities must lead the way, launching programmes and initiatives and coordinating other public and private actors, in order to overcome former and new digital gaps and to accomplish a complete inclusion of women in the IS.

Gender digital inclusion public policies must be based on the following principles:

1. Digital gaps between men and women are not the results of natural processes or personal choice, but are socially constructed, and as such must and can be addressed through specific policies.
2. A comprehensive approach is one that:
 - considers the different facets of the gender digital divide (access, uses, skills and abilities) and articulates interventions in the different fields of education, work and leisure;
 - is aware of women's availability and uses of time and the different stages of the life course, in order to facilitate specific inclusive measures designed for specific groups of women;
 - recognises that the content of policies has to be addressed not only to the women final receivers, but also to the structures and systems – knowledge generation about gender and ICTs; exchange, communication and diffusion of policies; stakeholders and social partners.
3. Gender equality in the IS: integrating gender equality measures in general ICT, IS and innovation policies.
4. ICTs for gender equality: integrating the advantages and utilities of ICTs in the development of equality policies.
5. Influence public and private stakeholders in order to make policies sustainable.
6. Policies necessarily must have a clear target of combating gender discrimination.

A first distribution of roles and responsibilities between the different actors involved in gender digital inclusion can be as follows:

- Supranational authorities and international organisations
- Setting goals and standards for policies of gender inclusion in the IS
- Setting standards for gender indicators of IS
- Coordination of data gathering and elaboration of international reports that allow for accurate description of the gender divide and evaluation of progress
- National governments
- Planning of infrastructure and services for access with the aim of social and digital inclusion – broadband in rural areas, fair fares and the possibility of free access, availability at public schools and libraries
- National Actions Plans for gender equality and inclusion in the IS
- Objectives of gender inclusion in ICTs and IS policies
- Gathering and processing information, evaluation of policies
- The central role of regional and local governments is bringing policies close to citizens at

- the regional level: designing, carrying out and funding programmes
- the local level: keep close to the most excluded and marginalised through public connection centres
- specific programmes adapted to local group characteristics and needs
- The education system

At the national level, national education plans must change, if necessary, to include ICT skills in primary, secondary and higher education curricula with 'hybrid' ICT courses incorporated into all curricula offered, including ICT training in non-technological subjects (history, geography etc.).

- At the regional and local level
- Programmes for making parents, teachers and career guidance counsellors aware of ICTs as an important and viable opportunity for girls
- Improving the quality of ICT teaching, to ensure that women students know about the continually evolving nature of the IS and that they need to carry on improving their skill base for life
- Gender-aware pedagogy for teaching ICTs
- Research organisations and academic associations can contribute to the general awareness about gender digital divides and opportunities by
- improving gender ICT knowledge through research, academic publications and diffusion to the general public
- cooperating with government at every level in designing plans for gender equality in the IS, and in evaluation of plans and actions
- launching specific programs in cooperation with educational institutions to bring more girls and young women to ICTs
- Civil society: NGOs, women's organisations, political parties and social partners play an essential role in
- enhancing the outlook of women as final beneficiaries of gender ICT policies
- developing micro-interventions based on the detected ICT needs of specific groups of women – housewives, immigrants, those returning to employment after parental leave
- launching specific programmes for improving employability and entrepreneurship among women through use of ICTs
- Equality agencies should design straightforward policies in order to enhance
- use and appropriation of ICTs by women
- women's participation in public affairs
- involving women's organisations with government ICT agencies to facilitate the shaping of IS policies to women's specific needs

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Gaps in media and communication governance: towards a gender-aware research and advocacy agenda

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Gender aware communication scholarship has been slow to engage with the domain of media and communication policy: though preoccupations about women's equal access to media content, employment and decision-making, about their fair representation in the media and about the constraints to women's communication rights in the evolving digital context are clearly dependent on policy determinations, the broader policy context of gender inequalities in the media has seldom been investigated. The situation is gradually changing, with contributions exploring different aspects of the policy dimensions characterising the nexus between gender and media (Jorge, 2000; Jensen, 2005; Sarikakis and Shade, 2008; Sarikakis and Nguyen, 2009; Gallagher, 2011, 2014; Byerly, 2011; Padovani and Pavan, 2013; EIGE, 2013). Yet much remains to be done in terms of conceptual clarification, the elaboration of analytical frameworks adequately grounded in feminist theory, efforts to reduce existing fragmentation in research programmes, the conduct of cross-cultural and comparative investigations.

As a group of committed scholars within the IAMCR, we feel it is appropriate to devote specific attention to these aspects at a particular moment in time. Over the next two years a series of international events, processes and debates relevant to the nexus between women and media and gendered relations, will take place: the UNESCO promoted *Global Forum on Media and Gender*; the celebration of the *UN Beijing + 20 conference* and of the *UN promoted World Summit on the Information Society +10 summit*¹; the final phase of the Millennium Development Goals². The year 2015 promises to bring renewed and heightened attention to the many concerns women and men have about their rights to communication in digital and knowledge societies. It therefore seems timely to develop a theoretically sound and comprehensive research agenda, and to contribute to those debates by setting the stage for much needed investigations and reflections aimed at informing future media policies and, more broadly, the governance of global communications, with an explicit and forward looking gender orientation.

For some decades now we have been persuaded by Wildavsky's (1979) suggested role of policy analysts as those who 'speak truth to power'. More recently, Peter Haas (1992) developed the concept of epistemic communities as networks of professionals with recognized knowledge and skills in a particular area, who share sets of beliefs that provide a value-based foundation, useful to guide decision-makers towards the adoption of appropriate norms and institutions, by framing and institutionalizing specific issue-areas. As an epistemic community, IAMCR aims at operating as a source for policy innovation; hence at the IAMCR 2013 conference in Dublin a multi-vocal conversation was initiated to address and frame gender gaps in media policy as an issue area. A panel titled 'Speaking truth to power about gender and communication: International and regional policy developments towards Beijing+20' was organised; scholars from different regional and cultural contexts, and with different research interests and methodological approaches – including Carolyn Byerly, Karen Ross, Aimée Vega Montiel, Peter Kareithi and Susan Abbott– contributed their views; and written versions of their contributions have been collected in an issue of *Feminist Media Studies* (forthcoming 2/2014). That conversation helped clarify if and how far institutional and media actors are indeed promoting meaningful changes towards more gender-aware media policies and practices in different world regions, suggesting at the same time how the scholarly community can contribute to make those changes happen.

The rest of this article focuses on the latter aspect: on what ground an epistemic community like IAMCR can become a more relevant stakeholder, in cooperation with other entities, particularly UNESCO, in framing and fostering a set of guiding principles for media and communication that reflects well established principles of equality and non-discrimination, while realising the objectives of increased women's participation and empowerment in and through the media, balanced and non-stereotyped representation of women, freedom of expression for women and full enjoyment of their communication rights.