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Digital Skills and Labour Opportunities for Low-Skilled Woman

by Lidia Arroyo Prieto and Gérard Valenduc

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The Dynamics of Virtual Work

COST Action IS 1202, *The Dynamics of Virtual Work,* is an international interdisciplinary research network on the transformation of work in the Internet Age, supported by COST (European Co-operation in Science and Technology) within the Individuals, Societies, Cultures and Health Domain. Chaired by Ursula Huws, Professor of Labour and Globalisation at the University of Hertfordshire in the UK, the Action is managed by a committee of representatives from 30 participating COST countries. Further information about the Action can be found at **http://www.cost.eu/domains_actions/isch/Actions/IS1202**.

ICTs have had a major impact on the content and location of work. Digitisation of information has transformed labour processes whilst telecommunications have enabled jobs to be relocated globally. But ICTs have also enabled the creation of entirely new types of 'digital' or 'virtual' labour, both paid and unpaid, shifting the borderline between 'play' and 'work' and creating new types of unpaid labour connected with consumption and co-creation of services. This affects private life as well as transforming the nature of work. Because of the gender division of labour, this affects women and men differently.

The changing geography of virtual work and the emergence of new value-generating virtual activities have major implications for economic development, skills and innovation policies. However these are poorly understood because they have been studied in a highly fragmentary way by isolated researchers.

This Action will distil knowledge to enable policymakers to separate facts from hype and develop effective strategies to generate new employment and economic development in Europe. It will bring together experts in the fields of communications, innovation, management, digital media, creative industries, technology, employment, economics, sociology, geography, gender studies and cultural studies to consolidate theory, map this emerging field, support early stage researchers and develop new research agendas.

This Working Paper is one of a series published by the Action in pursuit of these aims.

Lidia Arroyo Prieto is PhD candidate in the Gender and ICT Research Programme at the Internet Interdisciplinary Institute (IN3)- Universitat Oberta de Catalunya (UOC), Spain.

Gérard Valenduc is a co-director of the Research Centre of Fondation Travail-Université (FTU) and an invited professor at the Universities of Namur (FUNDP) and Louvain-la-Neuve (UCL). He specialised in research on the human and social dimension of technological changes and on the sociology of science and technology.

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Digital Skills and Labour Opportunities for Low-Skilled Woman

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Abstract

With the rise in importance of digital technologies in the economy, digital skills are one of new demands for the workforce. This represents news challenges for gender equality, as digital skills are unequally distributed and low-educated women are the most disadvantaged social group. To what extent can the acquisition of digital competences be an asset for improving the labour market position of low-educated women in the digital economy? An analysis of ICT training initiatives of NGOs identifies some key elements to be considered to bridge the employment gap of those women. However, digital skills themselves do not lead to an improvement of their position in the labour market. More gender equality and more job opportunities for less educated women are needed.

Introduction

The growing importance of digital technologies in the economy, together with the process of 'flexibilisation' of labour conditions, presents new challenges in terms of gender equality at work. The expansion of digital work entails new demand for digital skills in most occupations, even in low-skilled jobs. However, digital skills are unequally distributed among the workforce by gender (Castaño, 2008; Wyatt, 2008) and social class (Sassi, 2005; Van Dijk, 2005). In this context, NGOs play an important role in carrying out ICT training to bridge this digital gap (Garrido et al., 2012).

This chapter addresses the question to what extent the acquisition of digital competences can be an asset for improving the labour position of low-skilled workers from a gender perspective. Firstly, it analyses the challenges of the digital economy for gender equality and stresses the unequal distribution of digital skills in society. Secondly, a qualitative analysis of ICT training initiatives from NGOs in Spain and Belgium (as examples of two different social contexts in Europe) identifies the key elements that have to be considered to bridge the employment gap of low-skilled women through the acquisition of digital skills.

Challenges of the digital economy for gender equality in the labour market

New Division of Labour in the Digital Economy

The digital economy is based on the central role of producing, processing and distributing information and knowledge as a source of wealth (Castells, 2004; Tapscott, 1996). This new economy has been accompanied by a 'flexibilisation' of labour conditions (Perrons, 2003; Vendramin and Valenduc, 2002; Webster, 2006). In this economic scenario digital technologies are key factors because they enable fast, global production of information and knowledge (Jenkins, Ford and Green, 2013) and also to support the increasing flexibility on the labour market (Vendramin and Valenduc, 2002).

Consequently, the Information and Communication Technologies (ICT) sector has expanded and there is a growing demand for a workforce with professional or practical ICT skills as well as a high level of education. Moreover, the pervasive use of ICT across all economic activities has led to an increase in demands for e-skills, not only for ICT professionals, but also for workers of other occupations. Digital work is present even in low-skilled jobs. Thus, the borders between ICT professions and occupations which require digital skills but are not ICT-specialised have become increasingly blurred.

In terms of gender equality, the growth of the ICT sector has been seen as an opportunity to improve the position of women in the labour market. These expectations are due to the increase in job vacancies and highly regarded work in this sector. Moreover, as this sector requires communication skills, considered an asset of women, it was believed that the ICT sector would provide women with more opportunities and equality in the labour market (Webster, 2006; Wooldfield, 2000). However, these expectations have not been met, for several reasons.

Firstly, the 'flexibilisation' of labour conditions in the context of the globalised digital economy has entailed a double process of skills downgrading and workplace relocation that affects the global ICT sector (Fuchs, 2010; Huws, 2003). This phenomenon has led to the emergence of a new class of low-skilled workers linked to virtual work: the 'cybertariat' (Huws, 2003). Therefore, although such jobs

require digital skills, the work becomes increasingly repetitive, standardised, with a low level of autonomy and with precarious labour conditions. In addition, gender inequality persists in the ICT sector, in the same way as in the rest of the labour market, in which deskilled and precarious ICT-related-jobs are mainly occupied by women (Castaño, 2005; Webster, 2006).

Secondly, a new division of labour is emerging in the digital economy (Huws, 2003; Webster, 2006). On the one hand, there are highly valued posts with good labour conditions and high autonomy. For instance, ICT occupations that require formal educational credentials that certify the skills to create, implement, repair or manage ICT tools (Valenduc, et al., 2004). And, on the other hand, there are low-skilled ICT-related jobs which demand e-skills such as the ability to apply ICT tools in general workplace setting (Valenduc, et al., 2004) but without a strategic or specialised function. For these jobs the 'flexibilisation' process has led to a deterioration of labour conditions, with more temporary and (non-voluntary) part-time work (Valenduc and Vendramin, 2002; Webster, 2006). Regarding gender issues in this new division of labour, men are the main workforce of high-valued ICT professions, while women are concentrated in deskilled ICT-related jobs (Webster, 2006; Huws, 2003). The inferior conditions of female workers, such as low wages, temporary and part-time work, are related to the subsidiary position that women hold in the labour market due to the persistence of family wage system (Fraser, 1997). In this, men are the main supplier of economic resources as the breadwinner in households, while women are mainly responsible for domestic and care work. For this reason, it is assumed that if women participate in the labour market, their salary complements that of the male breadwinner. Thus, the flexible conditions of these deskilled ICT-related jobs are supposed to fit women's labour needs (Perrons, 2003; Webster, 2006).

Overall, the growth of ICT-related jobs that were initially seen as an opportunity to achieve more gender equality in the labour market, has not led to the expected results. The 'flexibilisation' that characterizes jobs in the digital economy worsened the working conditions of women. For example, in the new division of labour in ICT-related jobs, women occupy the lower positions in terms of skills required, status and labour conditions.

Digital Skills and the Improvement of Labour Opportunities from a Gender Perspective

A workforce with broad ICT skills is considered by employers, public authorities and policy makers as a prerequisite for growth and wealth (European Commission, 2011). But this movement towards a globalised digital economy raises new challenges for social equality, because new skills are unequally distributed according to gender and social class (Webster, 2004). As a consequence, several studies advance the hypothesis that social inequalities among users, regarding their access to employment, training, culture, communication, consumption and social participation, are primarily related to an unequal distribution of digital skills (Brotcorne and Valenduc, 2009; Hargittai, 2002; Van Deursen and Van Dijk, 2014; Van Dijk, 2005).

With regard to access to the labour market, the demands of this new skills mix threatens the position of several disadvantaged groups in the labour market, for instance the unemployed (particularly long-term unemployed), and 'returnees' (after a period of economic inactivity), two groups in which there is a high presence of women. The threat comes when they do not succeed in adjusting their skills according to the shifts in employers' demands (De Grip and Zwick, 2004).

However, ICT skills are also seen as an asset for improving the employability of disadvantaged people (Garrido et al., 2009). Employability can be defined as 'the combination of factors and processes that enable people to progress toward employment, to remain employed, and/or to advance in the workplace' (Garrido et al., 2012: 19). The increasing popularity of the concept of

employability fits the emergence of new work forms, linked to the digitisation of work and the globalisation of markets. As seen in the section below, these new work forms move from long-term tenure towards shorter-term, more flexible and transitory work arrangements, and from a collective to an individualised approach to work and employment (Castells, 2004; Huws, 2003). In this scenario, employability takes part in this conceptual and policy shift towards new work forms.

From this point of view, the accumulation of competences needed for the labour market (eg digital skills) improves employability, thus, automatically leading to better labour position. Nevertheless, the new requirements of the digital economy are not a neutral demand only for new individual capabilities, because gender and social inequality also affect labour opportunities (Huws, 2012).

One of the main considerations of the unequal distribution of digital skills in society is the type of e-skills that users are able to perform. Many scholars refer to the distinction between instrumental skills, informational skills (related to the format and the substance of digital content) and strategic skills (meaningful use according to purpose) (Brotcorne et al., 2010; Mariën, et al., 2010; Van Deursen et al., 2014; Van Dijk, 2005). In the labour market, the more types of digital skills a worker is able to achieve for mastery, the more workers can take advantage of this ability to access a 'good job' related to digital work. The strategic skills, which consist of the capacity to use the information contained in digital media as a means to reach a private or professional goal (Van Deursen et al., 2014), is particularly valuable. This is because in the globalised digital society the social position of an individual depends on the capacity of absorbing, processing and producing efficiently the relevant information for the goals of a specific network, such as a company or a professional sector (Castells, 2004).

Nevertheless, the strategic uses of the Internet are especially unequally distributed among the workforce by gender (Castaño, 2008; Wyatt, 2008) and social class (Sassi, 2005; Van Dijk, 2005). Digitally included women with low levels of socio-economic resources perform basic skills but not the strategic ones (Arroyo, 2014). As Garrido et al. (2009: iv) highlight, 'basic ICT skills are rarely the missing link that miraculously transforms employment prospects; low-skilled workers typically face multiple barriers (…), and digital literacy cannot be isolated from larger social and personal context'.

Therefore, digital skills will be relevant for the improvement of position in the labour market if combined with other conditions. One of the most basic prerequisites is that e-skills must be recognised as a worker's asset by employers, through renewed systems of credentials or certification for workplace abilities (Garrido et al., 2012; Green, et al., 2013; Huws, 2012; Webster, 2004).

In the digital economy, two phenomena affect the recognition of women's labour competences. The new division of digital labour entails new certified skills; and with these new credentials, the differentiation of labour by sex is reproduced. On the one hand, as Wooldfield (2000) shows, although male and female workers undertake similar tasks in similar workplaces, men have specialised accredited skills and, thus, they are paid more than women who do not have the recognised certification of their skills. On the other hand, the new digital economy also requires abilities traditionally associated with female capabilities such as communication and interpersonal skills – which are complementary to the digital skills – but they are not formally recognised, hence, the employers do not pay for the implementation of these competences (Webster, 2006; Huws, 2012).

In addition, digital skills have to be accompanied by a series of core generic competences in order to be effectively and worthily implemented in the labour market, such as language skills. In this scenario, workers with low levels of education or immigrants who are not fluent in the local

language have additional difficulties in taking advantage of their e-skills in the labour market (Garrido et al, 2009; Arroyo, 2014).

Moreover, beyond the individual investment in improving employability, it is essential to have job or career opportunities (Webster, 2004; Garrido, Sullivan and Gordon, 2012). In the case of women, job opportunities, especially in working-class women, have recently deteriorated despite the efforts made to improve their skills (Torns and Recio, 2012). For this reason it is important to take into consideration gender inequalities in the labour market to assess to what extent digital skills improve the labour position of women (Huws, 2012).

In this regard, Huws (2012) also highlights the issue of gender division of labour that is usually missed when referring to employability. Both in the academic and public policy debates, the public sphere is the only arena that is taken into account; by contrast, the household sphere, and its contradictions with the demands of the labour market, is ignored. As Huws (2003:3) points out 'the difference in workers' skills and abilities, including their ability to offer their services at particular times or to be free to travel are generally conceived as individual attributes'. However the availability of women to participate in the labour market is also related to their work responsibilities in the household sphere (Miguélez and Torns, 1998). Thus, women's opportunities to acquire digital skills and to develop them on the labour market are influenced by their domestic and care responsibilities.

Faced with these challenges of the digital economy, the next section will show how digital skills are unequally distributed among the European workforce nowadays, and which social groups face difficulties in participating in the digital economy.

The Unequal Distribution of Digital Skills

Recent overviews of the measurement methods of digital skills (Litt, 2013; Van Deursen et al., 2014) highlight different ways to assess and quantify digital skills and their distribution in society. The most widespread method consists of measurement by surveys, based on self-declared abilities or on inventories of user practices. This method is used in most national or international surveys on ICT use among individuals or households, including the Eurostat survey and numerous other benchmarking studies. Regarding the typology of digital skills, such surveys mainly address instrumental skills and, to a lesser extent, formal skills.

A picture of social inequalities regarding digital skills can be drawn from the Eurostat survey on ICT use by individuals and households (Community Survey of the Information Society – CSIS). The most recent data on computer skills date from 2014, on Internet skills from 2013. The CSIS assesses the individuals' level of computer skills (and respectively Internet skills) through a set of six self-declared abilities to carry out specific computer (vs Internet) tasks. In order to build up an indicator of digital skills, individuals who declared that they carried out three to six of the surveyed computer tasks were considered 'computer skilled', and those who declared that they carried out three to six of the Internet tasks were considered 'Internet skilled'. Both computer and Internet skills were included in the measurement of digital skills because they 'continue to hold a critical place with respect to participation in the Information Society' (Sørensen et al., 2011:17), especially when referring to labour market participation.

Table 1 shows the percentage of 'digitally skilled' individuals among the population of users, according to gender, work status (at work as employed or self-employed; unemployed; retired or other inactive people, except students), and level of education: low = below secondary school

(ISCED 0-1-2), medium = secondary or post-secondary education (ISCED 3-4), high = higher education (ISCED 5-6).

Table 1 'Digitally skilled' users as a percentage of individuals who have ever used a computer and/or the Internet, according to socio-demographic characteristics, in the European Union (EU28)

	Computer skilled	Internet skilled
All individuals	66%	59%
Level of education and age		
Individuals aged 16-24 with low formal education	77%	80%
Individuals aged 16-24 with medium formal education	83%	83%
Individuals aged 16-24 with high formal education	91%	92%
Individuals aged 25 to 64 with low formal education	41%	41%
Individuals aged 25 to 64 with medium formal education	60%	52%
Individuals aged 25 to 64 with high formal education	85%	71%
Level of education and gender		
Males with low formal education	57%	55%
Females with low formal education	45%	49%
Males with medium formal education	67%	57%
Females with medium formal education	57%	53%
Males with high formal education	88%	72%
Females with high formal education	79%	69%
Work status		
Individuals aged 25 to 64, at work	69%	59%
Individuals aged 25 to 64, unemployed	58%	58%
Individuals aged 25 to 64, retired or other inactive	44%	40%

Source: Eurostat, Community Survey Information Society, 2013 (Internet skills) and 2014 (computer skills)

A first observation is that the level of education obviously matters. The proportion of skilled users linearly increases with the level of formal education, either combined with gender or within the age groups. Adults over 25 years with a low level of education display the lowest percentages of skilled users (41%). Among the low-educated, women are more disadvantaged than men; this gender gap decreases as the education level increases.

The difference between employed and unemployed people is not significant regarding Internet skills, and is smaller than the education gap regarding computer skills. Particular attention has however to be paid to 'retired and other inactive people' in the 25-64 age group, among whom the percentage of skilled users is also very low. Considering the Eurostat definition of 'unemployed' (ie those who are not employed but who are actively seeking a job and are immediately available for work), a lot of jobless people may fall in the category of 'inactive' instead of 'unemployed', if they are discouraged regarding job seeking, or not available to work for health or personal reasons.

The gender gap is wider in computer skills than in Internet skills. The gender differences among the less educated regarding Internet skills is 6 pp (from 49% to 55%), and twice that in regard to computer skills (12 pp, from 45% to 57%). In general terms, computer skills are more widespread than Internet skills, with the exception of women with a low level of education. The percentage of less educated women having Internet skills (49%) is higher than the percentage having computer skills (45%). It indicates that despite being digitally included in terms of using the Internet, women with low-level education are less able to use a computer. This is a particularly critical point, as these women have fewer opportunities to use digital skills in the labour market.

There are, however, substantial limitations in the exploitation of the EISS data on digital skills. First of all, the surveyed computer-related 'abilities' are mainly technical or operational, only addressing

instrumental skills, without any indication about informational skills. Secondly, there is no indication whether the computer or Internet tasks are carried out easily or with difficulty, frequently or rarely. Thirdly, the computer tasks surveyed reflect a gender-stereotyped vision of computer use, emphasizing technical tasks that the gendered division of labour mainly attributes to men (programming, connecting hardware) and neglecting less technical tasks (such as text or image processing, lay-out). The differences observed between women and men might be, at least partly, a consequence of a gender-biased characterisation of computer skills.

Despite these limitations, the results of EISS highlight a significant deficit of digital skills among the less educated, particularly women.

A policy consequence of all these research findings is that, in order to bridge this skills gap and promote the participation the more disadvantaged groups in the digital economy with more equality, lifelong training programmes and supporting initiatives must be implemented paying special attention to women with low-level education. In this context, ICT training by NGOs plays an important part, as NGOs can provide training curricula, job-seeking assistance and gateways to employment (Garrido et al., 2012). NGOs offer affordable access to ICT training, in institutional environments that promote lifelong learning, and their pedagogical methods are adjustable to a diversity of target groups and learning styles. It is the reason why the second section of this paper will focus on the role of NGOs in improving both digital skills and employability.

How the Low Skilled Can Benefit from ICT Training in NGOs

This section is based on empirical qualitative fieldwork, consisting of semi-structured face-to-face interviews with 12 coordinators of ICT training programmes for low-skilled and/or unemployed people (mainly women) in Spain (9) and Belgium (3). The latter were conducted during a COST short-term scientific mission of one of the authors (Lidia Arroyo) at the University of Namur. The interviews were conducted between March and November 2013. These interviews aimed to identify whether digital skills represent an asset for the workers who attend those ICT training programmes, and, more specifically, for women with low-level education.

The Labour Market Context in Spain and Belgium

The mix of interviews carried out in Spain and Belgium proved an interesting illustration of two different labour market contexts, despite the fact that both countries are facing an economic crisis which has led to a reduction in employment levels. At first glance, the greatest difference concerns unemployment, and particularly the female unemployment rate: according to Eurostat data (2014), 25.3% in Spain (15.5% higher than the EU-25 average), compared to 8.2% in Belgium (2.4% lower than the EU-25 average). Looking at the female unemployment rate for the 25-64 age group, similar differences are observable: 23.4% in Spain, compared to 6.7% in Belgium; in this age group, the unemployment rate is particularly high among women with lower formal education (in the meaning of Table 1): 33.3% in Spain, 13.8% in Belgium.

When comparing the educational structure of the active population in Spain and Belgium, the relative weight of 'low-educated' women is quite different: 34.2% in Spain, compared to 16% in Belgium; women are however not disadvantaged from the educational point of view, as the proportion of low-educated men is still higher in both countries: 42.7% in Spain, 22.3% in Belgium.

Low-educated women are however more disadvantaged than men as regards digital skills. The general features of inequalities in digital skills in the EU (Table 1) are roughly relevant for both

Spain and Belgium. Although the labour market indicators are much better in Belgium, the level of computer skills of the low-educated is slightly better in Spain.

In both countries, NGOs play an important part in the organisation of ICT training for the unemployed or for the low-educated, as shown in the results of the MIREIA survey, which assessed the impacts of e-inclusion actors on digital literacy and skills regarding the inclusion goals of the Digital Agenda for Europe (Rissola and Garrido, 2013). Such initiatives coming from the 'third sector' aim at two objectives: integration in the labour market and more generally the reduction of the digital divide (e-inclusion). Among Internet users in Spain, 25% of low-educated women and 14% of low-educated men acquired their digital skills through training courses in adult education centres; in Belgium, the figures are 18% and 10% Respectively. Such data reveals that training attendance is higher in a more insecure labour market, suggesting that ICT training might contribute to secure positions in the labour market.

The Relevance of Digital Skills and its Relationship with the Socio-economic Context

The comparative analysis of ICT training strategies for labour insertion between Spain and Belgium is relevant for obtaining empirical evidence that shows the importance of taking into account how the social and economic context shapes the opportunities that digital competences bring for employability.

On the one hand, the coordinators of ICT training programmes in Spain emphasize the difficulties in offering useful digital resources to enable people to find a job. This is because the profiles of participants on ICT training courses are women who encounter more difficulty in (re)joining the labour market due to their age and level of education.

'We have a profile of women who unfortunately are very far [from the labour market]. (...) We have a great number of women over 45 (...) who have never seen...or they do not know or are afraid of touching a computer' (Coordinator of ICT training programmes, Spain).

On the other hand, the Belgian initiatives for employment have a high rate of successful results. One of the coordinators of ICT training programmes points out that 'we have 70% of labour inclusion after completion of the courses'. Moreover, coinciding with the results of Chapple (2006), there are some cases of women who were e-excluded but discovered an ICT-job vocation after the course. This relates to what Garrido et al. (2009) point out: first, that the development of basic ICT skills is often integrated in wider skills packages including literacy, communication, teamwork, which may 'tip the balance' or 'keep the applicant in the running'; and, second, how ICT skills can be a catalyst for key skills development. Through its attractiveness, ICT training can become a springboard towards further training, even in quite different vocational areas.

'There are times when they come and discover a vocation. Sometimes they come to learn how to use a computer but, later, they enrol on advanced courses with more hours and discover a vocation, (…) learn a trade (…). There are people that we had in the last group of women who were studying office IT courses and they discovered that they like web programming. They have done more specific training courses such as programming. There are people, who in addition to finding a job, continue studying' (Coordinator of ICT training programmes, Belgium).

Contents of ICT training strategies for employment also differ between the two countries. The Belgian initiatives focus on labour market-oriented training such as informational and

communicational skills for job searching or personal development and self-confidence in work-related aspects.

'We also work on personal development such as stress management techniques. These techniques help job-seekers to deal with stress in the workplace or with finding a job. We also work on their self-image, self-esteem and self-confidence. (…) We teach all the techniques to search for a job through the Internet and also how to write a motivation letter.' (Coordinator of ICT training programmes, Belgium).

Moreover, in some cases, the attendants of Belgian courses also have the opportunity to do internships for companies with the possibility of subsequent employment.

'We have an enterprise at which we send our students in order to continue their training and, after two or three weeks, they are working there in real conditions. Later, if it is convenient, the company offers them a labour contract.' (Coordinator of ICT training programmes, Belgium).

Conversely, in Spain, due to the lack of job opportunities, ICT training programmes for employment have to readjust the content of the courses by introducing other topics that are not directly related to the labour market. As shown in the next section, these alternative issues can be more related to social participation and empowerment or topics related to household matters depending on the gender perspective of the training.

Overall, the disparities between these two countries show the importance of taking into account the economic and social context when analysing the changes related to digital skills (Warschauer, 2004). Furthermore, Belgium presents more job opportunities and consequently ICT training initiatives for employability are more effective than in Spain where the opportunities for finding a job are scarce, especially for low-skilled women.

The Gender Perspective

This section focuses on the different strategies for employability that the Spanish ICT training initiatives have introduced in order to address the lack of job opportunities. There are two main strategies according to gender perspective that imply different consequences for the employability of low-skilled women.

On the one hand, there are programmes that introduce the topic of social participation of women through the Internet in order to empower women as citizens. According to the coordinators of these programmes, when women use the Internet to participate actively as citizens, they increase their chances of finding a job.

'We explain the requirements and conditions of the labour market to them. If you want to achieve a job and training, you will have to do all these things or you also have the option of social participation (…). It is useful for you as a citizen but it could also be useful on the labour market, because you have already used the e-government services'. (Coordinator of ICT training programmes, Spain).

On the other hand, there are programmes that redirect the content of ICT training for employability courses by reinforcing the traditional role of women as housekeepers. In these cases, the courses motivate women by showing them the opportunities offered by the Internet related to their everyday activities because it is believed that they will not find a job. The general assumption is that women are only interested in gender stereotyped activities such as reading gossip magazines, crocheting or cooking.

'To get women to join the course you have to be pragmatic. I am talking of women over 45 that perhaps are not the most employable ones. (…) We achieved this [their enrolment] by looking up gossip magazines on the Internet. (…) What is it [the Internet] useful for? It is useful for information about crocheting, recipes…all related to quotidian things' (Coordinator of ICT training programmes, Spain).

This lack of traditional gender perspective in ICT training programmes will promote a reproduction of sexual division of the labour, making it more difficult for women to find a job (Best and Maier, 2007). Moreover, women with non-traditional gender roles will be excluded from these ICT training courses (Landström, 2007).

In accordance with the conclusions of Bonder (2002), Best and Maier (2007) and Sørensen et al. (2011), these results confirm that the gender perspective in ICT training has significant consequences for the improvement of the labour position of women regarding their digital skills.

Conclusions

The rise of the digital economy entails new challenges for gender equality in the labour market, particularly for low-skilled women. With the process of 'flexibilisation', a new division of labour implies that women enter the ICT sector without providing more gender equality, contrary to what was thought initially. These transformations together, with the general persistence of gender inequality in society, produce those new deskilled and downgraded jobs with poor working conditions, mainly occupied by women.

The more digital work and virtual work permeates all occupations, even the low-skilled, the more the demand for digital skills extends to the entire workforce. However, this new demand presents new challenges for gender and social equality, because digital competences are unequally distributed among the population by gender and social class. The results of the analysis show that women with low-level education are the most disadvantaged group to participate in the digital economy in the European context. In this scenario, ICT training programmes for adults implemented by NGOs, play an important role in the acquisition of digital skills by low-educated women.

One of the key aspects to bridge the employment gap through the acquisition of digital skills is the gender perspective in ICT training programmes. Programmes that take the gender perspective into account focus on the promotion of strategic uses of the Internet to increase the job opportunities of low-skilled women. Even in the case of a lack of job opportunities, the initiatives that take into account the influence of gender division of labour promote strategic uses of the Internet such as social participation and citizenship. Although they do not directly improve labour market positions, strategic uses help low-skilled women, better positioning them for future job opportunities, in contrast with ICT training programmes based on traditional gender visions, which only focus on Internet uses related to women's household responsibilities, reinforcing the gender division of labour.

Moreover, digital skills have to be accompanied by other factors in order to be valued in the labour market. First, more labour opportunities are needed for low-skilled women. As detected in the comparison between Belgium and Spain, the acquisition of digital skills through ICT training initiatives is more effective in the former than in the latter, in terms of finding a job. This is due to the lack of job opportunities, particularly for low-skilled women, in Spain, in comparison to Belgium.

As a final consideration, the acquisition of digital competences in the case of less-educated women can open the doors towards new forms of work, such as online work, crowdworking, and other types of virtual work. There is however a risk that, despite empowerment, less-educated women would be kept at the lower end of virtual jobs and exposed to deskilled tasks and precarious working conditions. The issue is to consider to what extent virtual work could become for them something more than moving from real to virtual precariousness.

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