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*Mujeres inmigrantes e integración laboral en Cataluña: el impacto de las nuevas tecnologías de la información y la comunicación*

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# Migrant Women and Labour Integration in Catalonia: The Impact of New Information and Communication Technologies\*

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**ABSTRACT** | This article uses data from 35 semi-structured interviews of migrant women from three different ethnic backgrounds living in Catalonia to explore the use of ICTs in their economic integration. The results show that the three groups of migrant women studied perceive ICTs as important instruments of economic integration, though they tend to use them rather marginally for this purpose. The mediating role of network capital is not forthcoming, bridging social networks being rather a consequence than a determinant of migrant women's economic integration. Digital connectivity does not seem to cancel out the relevance of traditional variables of social inequality such as education, age, or origin. Young educated women, and particularly of Romanian and Ecuadorian origins, tend to make a better use of ICTs for their economic integration in Catalonia.

**KEYWORDS** | Migrant women, Information and Communication Technologies (ICTs), Internet, labour integration, social capital.

## Mujeres inmigrantes e integración laboral en Cataluña: el impacto de las nuevas tecnologías de la información y la comunicación

**RESUMEN** | Este artículo utiliza datos de 35 entrevistas semiestructuradas a mujeres inmigradas en Catalunya procedentes de tres diferentes colectivos étnicos, para explorar el uso de las TIC en su integración económica. Los resultados muestran que los tres grupos de mujeres migrantes estudiados perciben las TIC como instrumentos relevantes en sus procesos de integración económica, aunque el uso para este propósito tiende a ser marginal. El papel mediador del capital red no es diáfano; las redes sociales heterogéneas parecen ser más una consecuencia y no un factor determinante de la integración económica de las mujeres migrantes. La conectividad digital no parece anular la relevancia de las variables tradicionales de la desigualdad social como la educación, la edad o el origen. Las mujeres jóvenes con mayor nivel educativo y, en particular las de orígenes rumano o ecuatoriano, tienden a hacer un mejor uso de las TIC para su integración económica en Cataluña.

**PALABRAS CLAVE** | Mujeres migrantes, Tecnologías de la Información y la Comunicación (TICs), Internet, integración laboral, capital social.

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## Mulheres imigrantes e integração trabalhista na Catalunha: o impacto das novas tecnologias da informação e da comunicação

**RESUMO** | Este artigo explora o papel das TICs na integração econômica de três grupos de mulheres imigrantes na Catalunha e enfatiza o uso do telefone celular e da internet. Os resultados mostram que os três grupos de mulheres migrantes estudados percebem as TICs como instrumentos relevantes em seus processos de integração econômica, ainda que o uso para esse propósito tenda a ser marginal. O papel mediador do capital rede não é claro, as redes sociais heterogêneas parecem ser mais uma consequência e não um fator determinante da integração econômica das mulheres migrantes. A conectividade digital não parece anular a relevância das variáveis tradicionais da desigualdade social como a educação, a idade ou a origem. As mulheres jovens com maior nível educacional e, em particular, as de origem romena ou equatoriana tendem a fazer um melhor uso das TICs para sua integração econômica na Catalunha.

**PALAVRAS-CHAVE** | Mulheres migrantes, Tecnologias da Informação e da Comunicação (TICs), internet, integração trabalhista, capital social.

### Introduction

In today's increasingly feminized migration contexts, despite the fact that more and more women are adopting the role of breadwinner, most studies have focused on communication and family relationship maintenance as part of women's predefined social roles. These studies have highlighted the remote care provided through ICTs among migrant women (Fresneda 2001; Parella 2007; Parreñas 2003, 2005). Others have focused on the role of transnational communication for the maintenance of family relationships (Nedelcu 2009; Vancea and Olivera 2013), but there is little empirical evidence on the importance of ICTs for the economic integration of migrant women.

Various factors may determine the employment opportunities of migrant women, among which we could mention inequalities specific to the labour market structure of individual countries, socio-demographic characteristics, particular migration experiences, cultural norms, social networks, and family structures, etc. Nonetheless, in today's network societies, exploring the role of ICTs in the economic integration of migrant women may be of particular sociological interest.

This article explores the role of ICTs in the economic integration of migrant women in Catalan network society, without neglecting the possible influence of other factors like social networks, country of origin, age, and level of education. In the next section, we review the existent literature on the relationship between ICTs and immigrant integration in destination societies. We then outline the qualitative methodology employed in the study. Subsequently, we present the results of our analysis of the role of ICTs in the economic integration of migrant women. We close the article with final conclusions and suggestions for future research.

### Review of the Literature

A number of studies have pointed towards certain relationships between the use of ICTs and socio-demographic variables. Social groups adopt new technologies in different ways, depending on their specific needs as well as the potential of technologies to fulfil different purposes. User profiles are usually determined by basic socio-demographic variables such as age, gender, socio-economic status, and ethnic or cultural origin.

Older people, for example, use new technologies less often and have fewer ICT skills than young people (Fallows 2005; Fortunati and Manganelli 2002; Räsänen 2006). The use of new technologies also follows a pattern of gender inequality –although this is becoming less often the case in Europe– in which women generally use ICTs less than men (Fortunati and Manganelli 2002; Henderson, Taylor and Thomson 2002; Horst and Miller 2006; Räsänen 2006; Rice and Katz 2003; Weiser 2000; Wilska 2003).

In terms of the relationship between socio-economic status and ICT use, a longitudinal study conducted in 12 Latin American and 13 African countries from 2005 to 2008 (Hilbert 2011) found that fewer women access and use ICTs because of their unfavourable conditions with respect to employment, education and income. When controlling for these variables, women turn out to be more active users of ICTs than men are.

Educational level also emerges as an important factor for understanding the differences in ICT use. Individuals with higher levels of education are more likely to use the Internet than less educated individuals (Dutton, Gennaro and Millwood-Hargrave 2005; Franzen 2000; Pew Research Center 2004; Räsänen 2006; Robinson *et al.* 2002). Lastly, socio-economic status also tends to affect the adoption and use of ICTs (Calvert *et al.* 2005; Räsänen 2006).

When coming to the country of origin variable, just a few studies have explored the cultural or ethnic background of ICT users within and across countries. Ros and Boso (2010), for example, found that the origin variable is significant in explaining the differences in the use, equipment, and assessment of ICTs in the overall population of Catalonia and that its effect is independent of other factors such as age, educational level, or social class.

There are also some studies that have explored the relationship between the use of ICTs and immigrant integration in destination societies (Codagnone and Kluzer 2011; Diminescu 2008; Diminescu *et al.* 2009; Garrido, Sullivan and Gordon 2010; Komito and Bates 2009; Komito 2011). ICT skills tend to be of primary importance when it comes to expanding migrants' job opportunities and may play a significant role in the businesses that can be run by these individuals (Diminescu *et al.* 2009).

Other studies have focused particularly on the role of ICTs in fostering employment and how they can encourage the economic integration of vulnerable groups like migrant women (Adsera and Chiswick 2007; Boccagni and Pasquinelli 2008; Dumont and Isoppo 2005; Dumont and Liebig 2005; Garrido, Sullivan and Gordon 2010). According to these studies, access to and use of ICTs do not in themselves lead to the economic inclusion of migrant women. ICTs need to be combined with the daily needs and interests of these women, such as learning the language of the destination society or undertaking occupational training courses using ICTs.

Immigrant integration in the destination society is also conditioned by varying dimensions of social ties that they maintain with other individuals or groups (Granovetter 1973). Differences in the magnitude, composition, structure, and multiplicity of social networks can have an impact on the degree of social inclusion of migrants. Social capital involves the ability to access resources by virtue of membership in networks or broader social structures (Portes 1998, 6). Given their recent residence in the destination country, lack of institutionalization, and scarce material resources, migrants are often forced to rely on their own social networks for the satisfaction of many needs, from mere survival to entrepreneurship (Portes 2010, 42).

Several studies have stressed the relationship between social networks (usually bonding) and the economic opportunities of migrant populations (Fernández-Kelly 1995; Fernández-Kelly and Konczal 2005; Light 1984; Maya Jariego 2006; Ooka and Wellman 2006). Other studies have confirmed the importance of bridging social networks (including direct contact with potential employers) for finding a job and improving labour efficiency (Calvó-Armengol 2006; Borghans, Weel and Weinberg 2006; Drever and Hoffmeister 2008;

Zinnbauer 2007). Some studies have emphasised the importance of connectivity through ICTs for the formation of social capital and, consequently, for the social inclusion of immigrants (Drever and Hoffmeister 2008; Ling 2008; Maya Jariego 2006; Zinnbauer 2007). According to these studies, social networks fostered by digital connectivity tend to enhance migrants' social capital and facilitate their inclusion in different spheres of social life (labour, education, politics, etc.).

Clearly, socio-demographic variables as well as social capital may play an important role in explaining the economic integration of migrant women in destination societies. However, the growing importance of new technologies in the workplace and in migrant women's social life is also an important factor in understanding and explaining their economic integration. The purpose of this study is to add new data to the existing sociological literature by exploring the digital connectivity experiences and perceptions of three distinct groups of migrant women —Ecuadorian, Moroccan and Romanian — in relation to their economic situation and employment opportunities in the destination network society. Digital connectivity is seen as fostering social networks that in turn may enhance migrant women's economic integration in the destination society.

## Methodology

This article uses data from 35 semi-structured interviews of migrant women from three different ethnic backgrounds living in Catalonia (12 Ecuadorian, 11 Moroccan, and 12 Romanian) to explore the use of ICTs in their economic integration. For fully understanding how the use of ICTs influences migrant women's economic situation in the destination network society, we need to explore the social mechanisms that define the relationships among socio-demographic characteristics, communication and information behaviours, social capital formation, and economic integration.

The use of a qualitative methodology was considered the most appropriate strategy for capturing the perceptions, motivations, and specific experiences and circumstances that modulate the relationships among these factors. The open answers obtained during the interviews with the migrant women formed the empirical support from which we captured the relationships between migrant women's use of ICTs, social capital, and labour integration.

The migrant women studied were selected from four Catalan cities, all with high concentrations of these three population groups. The sample of migrant women participating in the study was selected by maximizing the variation in the factors considered by the literature to be crucial to understanding the economic integration of migrant women in the desti-

nation network society. These factors were: i) cultural background, ii) educational level, iii) age, and iv) characteristics of the city of residence.

Economic or labour integration was defined as the socio-economic status in the destination society, a concept that covered several dimensions including employment status, professional training, occupation, correspondence between occupation and professional training, sources of income and satisfaction with economic status, and employment situation. The technological variables explored in this study were: information technology equipment, Internet access, frequency and types of use of mobile telephone and Internet.

Based on the supplementary effect of digital connectivity on the formation of social capital (Wellman *et al.* 2001, 437), we included three analytical dimensions: a) network capital, b) participatory capital, and c) community commitment. Network capital was defined as those relationships with friends, neighbours, relatives, and co-workers that provide company, emotional support, goods and services, information, and a sense of belonging (Wellman and Frank 2001; Wellman *et al.* 2001). We furthermore differentiated between: *bonding network capital*, i.e., strong bonds with closest family members, best friends and those in the community with common characteristics and a specific identity (ethnic or religious); and *bridging network capital*, i.e., looser ties, fewer connections involving commitment with acquaintances and colleagues, or loose ties with other communities (Zinnbauer 2007).

Cultural variation was considered a determining factor in access to and use of ICTs. The EU27, North American, and Latin American groups seem to be strongly integrated into Catalan network society, in the sense that they are frequent users of several ICTs. The population groups born in the Maghreb and sub-Saharan Africa are the most scantily equipped in technological terms and tend mainly to use mobile telephones (Ros and Boso 2010). We chose the three largest groups of migrant women in Catalonia at the time of the interviewing: Ecuadorian, Moroccan and Romanian. The sample was also segmented by educational level (differentiating the basic, intermediate, and high categories) and by age (differentiating “young” participants from those between 18 and 35 years of age, and “adults” over the age of 35).

The four municipalities chosen for the study had high concentrations of those three groups of migrant women and different population sizes. Various studies showed that the size of a town or city can determine public and private investment in technology and that this can affect the relationship among the factors studied (Criado and Ramilo 2003; Salvador 2004). We therefore selected three municipalities with more than 20,000 inhabitants (Reus, Lleida, and Hospitalet de

Llobregat) and one municipality with fewer than 20,000 inhabitants (Santa Margarida i els Monjos).<sup>1</sup>

To recruit participants, we used a combined strategy of “judgement sampling” and “snowball sampling” (Corbetta 2003, 222-223).<sup>2</sup> Interviews were initially held with participants in the four cities who subsequently helped to complete the sample. After the initial interviews, several visits were made to the four cities in order to reach the required quotas. The interviews were conducted at different locations, the majority of which were proposed by the participants in order to set a suitable ambience for data collection. The interviews were held in Spanish, Catalan, or Romanian, depending on the request of the participant. An audio recording was made of each interview, which was later transcribed verbatim and analysed.

An effective way of analysing qualitative data is through data reduction, data display, and conclusion drawing (Miles and Huberman 1994). In this study, we used only data reduction and conclusion drawing to analyse the transcripts of participants’ interviews. Data display was unnecessary because the answers were fairly similar once the segmentation variables had been taken into account. Migrant women’s perceptions and experiences of the relations between their use of ICTs, social capital, and labour integration were initially identified using data reduction. Subsequently, the responses were classified according to the similarities and differences observed in migrant women’s perceptions and experiences. Lastly, conclusion drawing was applied to check the consistency and plausibility of the emerged discourses.

## Results

In this section, we present the results of the analysis of the transcripts together with an exploration of the relationship between the use of ICTs and the labour integration of migrant women. The most relevant questions we analysed were: What is the relationship between ICT (equipment, access and use) and the economic integration of migrant women? Does the use of ICTs influence the social capital of migrant

1 Source: Foreign population by country 2010 Catalunya, Idescat.

2 Judgement sampling, also known as purposeful sampling, is the most common non-probability sampling technique. The researcher selects the sample according to certain particularities or characteristics that would allow the detailed exploration and full comprehension of the phenomenon to be studied. The snowball sampling consists in identifying the subjects to be included in the sample from the interviewees themselves. The researcher starts with a small number of interviewees who fulfil the selection criteria, and then uses them as informers to locate other individuals with identical characteristics.

women? What is the relationship between migrant women's social capital and their labour integration? Besides assessing socio-demographic factors widely recognized as being determinants of inclusion in the network society (such as, age, and level of education), we also examined the hypothesis of whether country of origin is a key differentiating factor.

### Use of ICTs: Equipment, Access and Use

The first questions we analysed were: What information technology equipment do you have access to? Where do you usually connect to or access the Internet? How often do you use mobile telephones and the Internet?

The varying availability of information technology equipment in households is one of the main sources of inequality and exclusion in the network society (Castells 2004). From a descriptive point of view, one of the first conclusions reached when analysing the degree of information technology equipment in the three groups of migrant women studied was that not all of them entered the network society at the same rate of intensity. In fact, the data recorded in this study show that country of origin is a sociologically relevant factor for describing the differences in information technology equipment among the participants.

Ecuadorian women were found to have a higher level of information technology equipment than Romanian or Moroccan women did. All the Ecuadorian women interviewed had a computer with an Internet connection at home, but fewer Romanian and Moroccan women were found to have the same level of information technology equipment. Various Moroccan women had no computer or Internet access at home. All of the migrant women studied had a mobile phone at the time of their interview. However, when asked about the type of mobile phone they used, Ecuadorian women had more technologically advanced sets, with a large majority stating they had mobile phones with advanced features (touchscreen, 3G, etc.) as compared to Moroccan and Romanian women. The length of residence in the destination country was not found to be a determinant factor for the level of information technology equipment in any of the three groups of migrant women studied. Many of the Moroccan women interviewed who had arrived in Catalonia before 2000 revealed low levels of information technology equipment.

Connecting to the Internet from public call centres, Internet cafés, and libraries was found to be marginal in all three groups of migrant women studied. Only two Romanian women and one Moroccan woman used to connect to the Internet from call centres or libraries. Although Ecuadorian women appeared to have greater access to the Internet, there were significant infrastructure and time differences between Ecuador and

Catalonia that made it difficult for them to communicate with their families. As a result, many invested in new technologies not only in the destination country but in their country of origin as well. One 34-year-old Ecuadorian woman declared: "I have three computers: one desktop, our laptop, and another one that belongs to my son who lives in Ecuador and has come to visit. I sent him the money so he could buy it over there."

The migrant women who used the Internet most frequently were the Ecuadorians and the Romanians, followed somewhat far behind by the Moroccans. Some of the Moroccan women interviewed never used the Internet. This distribution was maintained when we analysed the frequency of mobile telephone use: all of the Ecuadorian women interviewed used mobile telephones frequently as compared to only about one half among the Romanians and the Moroccans. The distribution varied slightly when it came to using social networks (e.g., Facebook). While the vast majority of the Ecuadorian women often used Facebook, fewer Moroccans and Romanians used social networks.

Young women under the age of 35 (regardless of their origin) generally used the Internet, social networks, and mobile telephones most frequently. Women with higher educational levels also made more frequent and more generalized use of ICTs, regardless of their country of origin. These differences in ICT use by age and education were relatively important among all three groups of migrant women studied.

Ecuadorian women, regardless of their age and educational level, seemed to be permanently connected to the Internet and social networks, either from a computer at home or from their mobile telephones on the street. Communicating with their families in their country of origin was very important for them. In order to cut costs, they combined different forms of communication. Most declared that they had learned to use computers and the Internet by themselves and relied on their dense family networks to do so (children, especially daughters, but other relatives and friends as well).

In the case of the Romanian women, age significantly influenced the use of Internet, given that more young women than adult women used the Internet frequently. Education also had a significant impact, since Romanian women with just a basic education tended to use the Internet only occasionally. The use of social networks was quite low in this group, and most declared they did not like to access the Internet from their mobile telephones. Long-distance communication with family and their children's education were found to be particularly important for Romanian women's interest in information technology equipment. Some Romanian women with higher educational levels were also interested in accessing information about their countries of origin and destination via the Internet.

Educational level also had an important influence in defining user profiles in the group of Moroccan women, in which some participants were either not literate at all or only barely so. This group of women said that they neither used nor had access to computers or the Internet, although they added that they would like to learn. Some of them were on waiting lists to go on computer courses organized by the city councils. Although the use of ICTs was generally lower among the group of Moroccan women, they considered ICTs especially important for maintaining family relationships. The use of social networks was only marginal among the group of Moroccan women, where they were mainly used by the younger women, since many of the others did not have a profile on social networks and in fact had no interest in having one.

### ICTs and Labour Integration

The most relevant questions we analysed concerning the economic integration of the migrant women who participated in the study were: What is your employment status and professional training? Have ICTs helped you, or do you think that they could help you in the future to improve your employment status or job opportunities?

Ecuadorian and Romanian women were found more likely to be engaged in full-time employment than Moroccan women were. Most of the Ecuadorian and Romanian women who were employed at the time of the interview had unskilled jobs such as hotel and catering services, domestic cleaning, or caring for the elderly. The Moroccan women displayed the highest levels of only temporary employment and unemployment, and those who did work were employed well below their educational level, mainly in domestic cleaning or taking care of the elderly. Among the women interviewed, the Ecuadorians had the highest levels of access to and use of ICTs, followed by the Romanians in second place.

Most of the Ecuadorian women had emigrated alone in a desire to secure a better life for themselves, or more likely, for their children. At the time of the interviews, the majority lived with their husbands and children in Catalonia, though they still had parents, sisters and brothers or grandparents in Ecuador. Some had had to end their education earlier than they had originally planned, and entered the workplace in order to contribute to the economic survival of the family. For example, one 26-year-old Ecuadorian woman with an intermediate level of education had seen her dreams of being a vet dashed by reality. She finished secondary school and started looking for work as a kitchen assistant: "I couldn't do it all, with my mother and everything else... so I had to give up my studies. [...] I'd like to finish what I started. I wanted to be a vet. We'll just have to wait and see whether I can pick up

where I left off in the future." Some others have gone on courses geared towards the type of jobs they might be offered: assistants in nurseries and geriatric centres, nursing assistants, catering and hospitality staff.

Many Ecuadorian women used ICTs, particularly mobile telephones, to find jobs or improve their employment status. A mobile telephone was found to be essential to them for implementing their social networks in order to find work. Some used the Internet to send or post curricula vitae on a website or find a job, while others relied mainly on their friends and acquaintances to find work. However, in other cases of Ecuadorian women with an intermediate level of education, there was the view that, rather than making things easier, the Internet acts as a barrier (i.e., you send your CV and nobody replies) or as an unreliable virtual space. One 34-year-old Ecuadorian woman expressed this view in the following way: "Well, you also have to be very careful about which sites you send it to, because you send your CV on the Internet and it does not always go where you think you have sent it, or sometimes the pages are fictitious; we've had that experience with my niece already."

For some of the Ecuadorian women interviewed, the Internet was found to be useful for handling employment issues, organizing themselves as a group, obtaining more information, and even for mobilizing themselves. One 34-year-old Ecuadorian woman declared: "There are things that we hear about through the Internet; maybe a friend wasn't able to go in; if there's been a change, or I hear that somebody got sacked, or new staffs are being taken on... so it helps you a lot, in lots of ways."

Most of the Romanian women came to Catalonia because of their husbands, who arrived first. Some had left their children back in Romania, while others had brought them along. Most got their jobs as house cleaners or care givers for the elderly through people from their own immigrant community. In their case, ICTs played a significant role for building up or renewing social ties with other Romanians living in Catalonia. Nevertheless, the Internet was found to be primarily a means of communication with family back home and for finding useful information about their countries of destination and origin.

Some Romanian women with higher educational levels worked in more specialised jobs as cultural mediators or psychologists. For these women, the Internet was also useful for finding information related to existent or prospective jobs, but not as important as personal contacts, which was the real way to find work or to improve one's employment status. The Internet was considered rather an extra or indirect help, as one 33-year-old Romanian woman expressed it: "Well, for me, to find a course or something, yes, but specifically to help me find a job and all that, no."

Most Moroccan women also came to Catalonia due to their husbands. Some of them had recently arrived, while others had lived for a long time in Catalonia with their husbands and children. The majority of the Moroccan women interviewed worked well below their level of education. One 37-year-old Moroccan woman with a bachelor's degree who had been unable to find a job in which she could use her knowledge of Arabic Studies declared: "Well, I always enjoyed what I did, Arabic Studies. For example, I would like to teach Arabic in a school for adults or maybe to people who want to study Arabic at university or wherever. That, I would like." Cultural aspects often interfered with the work of Moroccan women, leading them to quit already undesirable jobs. The same woman explained the impact of the headscarf issue: "I was working in a restaurant wearing a headscarf and they told me that I had to take it off. I did not want to, so I left. I barely lasted a month there."

The Moroccan women with higher education levels also emphasized the usefulness of the Internet for obtaining and exchanging information related to job opportunities, their own work, or other relevant issues. For example, one 29-year-old Moroccan woman declared: "[...] If you use the Internet, it can get you lots of job offers. And you can meet people too. The Internet is very important. Friends of mine have made a lot of friends over the Internet." They also considered ICT skills to be very important for their integration in the workplace. One 39-year-old Moroccan woman used the Internet in her job managing the family's travel business, and she also used it in her private life to find useful information:

"Sometimes every day and sometimes... it depends... it depends on the work I have... Sometimes I look for health things too: when you see that your child has certain symptoms, for example, and he says that such a thing hurts and you do not know what is wrong, you can go and search for it... For example, I might not be sure but I think he might have this, so I enter the symptoms of it and I get whatever result. It is very useful, I find that very important."

Some of the Moroccan women interviewed also used ICTs for reasons related to their jobs as cultural mediators. One 37-year-old Moroccan woman with a university degree from her country of origin declared: "Sometimes the social assistants need you, for example; they'll ring you... could you come, we've got a difficult case... or... at the mosque... for example, they ring me, yes, the director, sometimes."

In sum, we could argue that in socio-labour environments with a low educational profile there is no evidence of any experience of capitalizing on the use of ICTs that could lead to a substantial improvement. In such environments, ICT use is more related to maintaining what one

already has than to opening up new employment opportunities. In socio-labour contexts with intermediate and higher educational profiles, ICTs appear to be more useful, both for information and organization purposes as well as for labour efficiency.

### The Intermediary Role of Network Capital

In relation to migrant women's network capital, we explored the following questions: What social networks do you have here? Do ICTs help you to expand your social networks? Have social networks been useful to you or do you think they could be useful to you in your integration in the workplace or for improving your job opportunities in Catalonia?

The network capital of the three groups of women studied was quite different. Ecuadorian and Moroccan women had fewer bridging social networks, i.e., they relied mainly on their strong bonds with family and friends from their own community. Conversely, Romanian women had more ties with people from other communities such as the local Catalan population.

Most of the Moroccan women interviewed lived in Catalonia because their husbands, who were also Moroccan, arrived before them. The length of residence in the destination country seemed to influence their network capital. The Moroccan women who had only recently arrived in Catalonia—generally young, newly married women—had very limited bonding social capital and practically no bridging social ties. Their inability to understand Catalan posed yet another barrier to meeting people and forming bridging social networks. Many of these women declared that they had not even been aware that the language existed until they arrived.

On the other hand, Moroccan women who lived in Catalonia the longest had developed the most network capital (both bonding and bridging). In the interviews, we found that some young women who came to Catalonia as children had a large social network formed by Catalans, Moroccans, and people of other nationalities from diverse areas of socialization such as school, the workplace, and the neighbourhood. A case in point was that of a woman who had lived in Spain for 20 years and never gone back to Morocco or maintained any ties there, and said that all of her friends were Spanish or Catalan. These women generally were employed and had bridging social networks.

Most adult Moroccan women spent their time looking after the home and caring for their husbands and children, and never developed any strong bonds with other people, except within their own community. In these cases, longer residence in Catalonia did not lead to further development of bridging social ties.

In this context, technology played an important role, but especially in maintaining contact with family and friends (bonding social networks), primarily by mobile telephone.

Most of the Moroccan women interviewed underlined the importance of ICTs, particularly to maintain bonding social networks. They explained that these ties with family and friends from their own community were often precisely the ones that provided the necessary economic resources, e.g., jobs, to live in Catalonia. In contrast, the usefulness of ICTs in developing bridging social networks and, consequently, for their labour integration in Catalonia was seldom mentioned in their personal statements.

The social networks of Ecuadorian women (also through the Internet) were mainly bonding: family and friends from their own community. Among younger women, we observed more diverse social networks with people from different communities. Ecuadorian women relied primarily on their bonding social networks, sometimes maintained through digital connectivity, to find work or improve their employment opportunities. Many Ecuadorian women mentioned family and friends from their own group as the people they called the most from their mobiles. Cell phones were also used to contact or be contacted by their respective bosses, as in the case of women who were employed in domestic cleaning services or caring for the elderly. One 42-year-old woman explained this as follows: "...the times I've been out of work, you just, well, tell a friend and that friend maybe tells someone she knows, and then you get a call right away: Hi, I was wondering if you'd like to put in a few hours..."

Most of the Romanian women interviewed lived in Catalonia because their husbands had come first. They had been living in Catalonia for more than five years. Romanian women had relatively high levels of ICT use and the most heterogeneous social networks. They secured their bridging social networks primarily through the workplace. Through their jobs (as cleaning ladies, care givers for the elderly, shop assistants, local council administrative assistants, restaurant waitresses, etc.), the women interviewed had the opportunity to meet people from different countries of origin, and especially locals, which was how they managed to secure the necessary social resources for living in Catalonia.

Some Romanian women with university studies managed to enter new social networks through their membership in associations, or activities with the church and their children's school. Educational level proved to be significant here, since it emerged as an important factor in the formation of the network capital of these women. It was the women with the highest levels of education who had the strongest contacts with Catalan

society, either through individuals, cultural and political institutions, or the media. This was precisely the point made by one 40-year-old Romanian woman with a university degree: "As I said, I look on the Internet to read the news and see what is going on, but not, for example, like many people from Romania who have Romanian TV channels. We don't do that."

In general, Romanian women expressed a greater interest in their future in Catalonia than the other two communities of women analysed. Their discourse suggested a desire to keep in touch with their families back home, but also to live their lives fully in Catalonia. This interest was also reflected in their use of the Internet as a source of information on different aspects of the destination country, including labour integration. This positive attitude of Romanian women toward their integration in Catalonia might be explained by the geographical and cultural proximity between their homeland and destination societies. However, future studies will be required to determine the specific role of culture or geographical proximity with respect to the integration of immigrant women in their destination societies.

Nonetheless, the network capital secured through digital connectivity did not appear to have much influence on Romanian women's labour integration or job opportunities. More traditional practices of social interaction, such as "word of mouth," seemed to work better in their case. One 43-year-old Romanian woman, who combined her work as an administrative assistant at the local council with a few hours of house cleaning, declared:

"When you find something, it's usually through word of mouth, more than anything else. I have sent tonnes of CVs to Infojobs and I have never had a single call. You know, if they don't know you, well, they see that you're Romanian and they don't know you, so... But the people who know me know what I'm like and if they hear of something, they let me know."

The Romanian women considered a knowledge of Catalan to be a much more important tool than digital connectivity for finding work or improving their job opportunities, and many of them took the time to learn the language. As a significant figure, we can cite the fact that more than half of the interviews with Romanian women were conducted in Catalan, in which they revealed a very good command of the language.

## Conclusions

This study has explored the relationship between the use of ICTs and economic integration by analysing the experiences and perceptions of three groups of migrant women—Ecuadorian, Moroccan and Romanian—living

in Catalonia. The network capital factor introduces a degree of nuance to the analysis of ICT use and its impact on the economic integration of the migrant women studied. Moreover, the country of origin, education, and age factors all seem to influence migrant women's economic integration in Catalan network society.

Of the three groups of migrant women interviewed, Ecuadorian women present the most advanced technology profile, regardless of age and educational level, with Romanian women in second place, and Moroccan women ranking last. Fewer Moroccan women connect to and use the Internet and mobile telephones frequently, and some of them, usually adults with little or no education, never use the Internet at all. Younger Romanian women with higher educational levels seem to use ICTs most extensively.

Our analysis of the interviews shows that the three groups of migrant women studied, regardless of their age, educational levels, and cultural background perceive the new technology as a valuable and necessary resource, primarily for (transnational) communication purposes with family members. Access to information and labour integration through the use of ICTs are also regarded as important by the three groups of migrant women studied, but seem to be less employed in practice.

Ecuadorian and Romanian women present higher levels of full-time employment, while Moroccan women register higher levels of only temporary employment and unemployment. Most Ecuadorian and Romanian women work in unskilled jobs, such as domestic services and catering industries, while most of the Moroccan women who do work have more specialized jobs as entrepreneurs, professionals, or technicians.

The use of ICTs to seek employment or to improve one's employment status is not widespread among all participants and is clearly marginal among Moroccan women. Moreover, the importance of digital connectivity for the creation of network capital and its possible contribution to the labour integration of migrant women is more visible among Ecuadorian and Romanian participants and far less evident among Moroccan women.

In the case of Ecuadorian women, mobile telephones seem to be essential for implementing their bonding social networks to find jobs, while the Internet is sometimes used to upload CVs. Digital connectivity, particularly by mobile phone, also helps them to maintain their jobs in domestic services. Although they present the highest technological profile, most have few bridging social networks and work in less specialized jobs.

The Romanian participants make more extensive and diverse use of ICTs both for communication and information purposes. Romanian women register higher

levels of economic integration with more upward job mobility than the other two groups, primarily through their bonding social networks. Digital connectivity plays an important role in social capital formation, though word of mouth seems to work better in their case. Education appears to be an important factor in the formation of their bridging network capital, and it is the Romanian women with high levels of education and more specialised jobs who have the strongest contact with Catalan society.

The Moroccan women interviewed are less technologically and economically integrated. Among Moroccan women, it is those with high levels of education who have stable employment and use ICTs on a regular basis. Nonetheless, even Moroccan women who never connect to the Internet but do know of other people's experiences regard the new technology as something positive. The Moroccan women also reveal the lowest level of network capital (both bonding and bridging). In general, they do not regard ICTs as useful for the development of bridging social networks and, hence, do not see the potential of such technology for labour integration. Nonetheless, the Moroccan women who do work usually occupy more specialized positions, use ICTs frequently, and experience more heterogeneous social networks.

In sum, the empirical evidence in this study shows that the role of ICTs in the economic integration of migrant women is not clear-cut, since traditional variables such as country of origin, age, and educational level also seem to influence this relationship. The results also indicate that bridging social networks are more an effect of labour integration than a mediating factor, since it is the working migrant women who reveal the most heterogeneous social bonds, based on the contacts they make in the workplace. In any case, more in-depth studies are required in order to explore the complex relations among the use of ICTs, social capital formation, and economic integration in the case of migrant women.

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## ANNEX

Table 1. Profile of immigrant women interviewed

Number of interviewed women by selection criteria (country of origin, age, level of education and place of residence)											
Country of origin		Romania			Morocco			Ecuador			
Place of residence	Age	Low education	Intermediate education	High education	Low education	Intermediate education	High education	Low education	Intermediate education	High education	
Lleida	Young	2	2	2							
	Adults	2	2	2							
Reus	Young				1	1	1				
	Adults				1	1	1				
L'Hospitalet de Llobregat	Young							2	2	2	
	Adults							2	2	2	
Santa Margarida i els Monjos	Young				1	1	1				
	Adults				1	0	1				
Total by origin			12			11			12		

Source: Personal elaboration. All interviews were carried out between the beginning of June and the end of July, 2011.