



Instructions for authors, subscriptions and further details:

<http://generos.hipatiapress.com>

Digital Inclusion of Businesswomen and Women Entrepreneurs through Social Networks in the Informal Environment

Prudencia Gutiérrez-Esteban¹

Francisco de Paula Rodríguez-Miranda²

Sixto Cubo-Delgado¹

María Lourdes Hernández-Rincón¹

1) Universidad de Extremadura

2) Universidad de Huelva

Date of publication: October 25th, 2021

Edition period: October - February 2022

To cite this article: Gutiérrez-Esteban, P., Rodríguez-Miranda, F., Cubo-Delgado, S. & Hernández-Rincón, M.L. (2021). Digital Inclusion of Businesswomen and Women Entrepreneurs through Social Networks in the Informal Environment. *Multidisciplinary Journal of Gender Studies*, 10(3), 201-232. doi: 10.17583/generos.2021.7146

To link this article: <http://dx.doi.org/10.17583/generos.7146>

PLEASE SCROLL DOWN FOR ARTICLE

The terms and conditions of use are related to the Open Journal System and to [Creative Commons Attribution License \(CC-BY\)](#).

Digital Inclusion of Businesswomen and Women Entrepreneurs through Social Networks in the Informal Environment

Prudencia Gutiérrez-Esteban

Sixto Cubo-Delgado

María Lourdes Hernández-Rincón

Universidad de Extremadura

Francisco de Paula Rodríguez-Miranda

Universidad de Huelva

Abstract

With the diffusion of Web 2.0, opportunities for collaboration, participation and training in the professional environment have widened. The purpose of this study is to examine the impact of family set-up on the use of social networks by entrepreneurial women and businesswomen.

Epistemologically, the study is based on the logical positivism and the hypothetical-deductive method. From a methodological point of view, this research is quantitative and presents a descriptive design.

The participants in the study are woman from Extremadura and Andalucía (Spain), 477 entrepreneurs and 126 businesswomen.

The forms of use of social networks by businesswomen and women entrepreneurs varies according to age-group. However, the age does not appear to have any impact on the places where social networks are used.

The results lead us to believe that, in order to attain equality in the domain of digital inclusion, it is necessary to set up formal digital training to increase their digital presence and participation.

Keywords: digital inclusion, businesswomen, women entrepreneurs, social networks, descriptive design

Inclusión Digital de Mujeres Empresarias y Emprendedoras a través de las Redes Sociales en el Entorno Informal

Prudencia Gutiérrez-Esteban

Sixto Cubo-Delgado

María Lourdes Hernández-Rincón
Universidad de Extremadura

Francisco de Paula Rodríguez-Miranda
Universidad de Huelva

Resumen

Con la difusión de la Web 2.0 se han ampliado las oportunidades de colaboración, participación y formación en el ámbito profesional. El propósito de este estudio es examinar el impacto de la configuración familiar en el uso de las redes sociales por parte de mujeres emprendedoras y empresarias.

Epistemológicamente, el estudio se basa en el positivismo lógico y el método hipotético-deductivo. Desde un punto de vista metodológico, esta investigación es cuantitativa y presenta un diseño descriptivo.

Los participantes del estudio son mujeres de Extremadura y Andalucía (España), 477 emprendedoras y 126 empresarias.

Las formas de uso de las redes sociales por parte de mujeres empresarias y emprendedoras varían según el grupo de edad. Sin embargo, la edad no parece tener ningún impacto en los lugares donde se utilizan las redes sociales.

Los resultados nos llevan a pensar que, para lograr la igualdad en el ámbito de la inclusión digital, es necesario poner en marcha una formación digital formal para incrementar su presencia y participación digital.

Palabras clave: inclusión digital, empresarias, emprendedoras, redes sociales, estudio descriptivo

When examining the situation of women in the context of transition studies, and in particular the move from training to the labour market, it can be observed that the way is paved with inequalities and instability from the very start of contact with the world of work. In Spain, these work-related issues become yet more serious when we compare women with their male counterparts, particularly if we take into account that women are educated to a higher level, are in the majority at nearly all levels of the education system and obtain better academic results (Gutiérrez-Esteban & Luengo-González, 2011; Martínez-Pastor, 2017). Thus, concerning the developed world, we can refer to the paradox between the academic level reached by women and the roles that they occupy in society, while we can also see that, both nationally and internationally, horizontal and vertical segregation remains unchanged throughout the majority of higher-education systems (Charles & Bradley, 2009; Tellhed, Backstrom, & Bjorklund, 2017). This phenomenon is reflected in the job market: women's entry into the working world has been a trend over the last few decades, not only due to the structure of the economy itself but also as a result of the attitudes and behaviour of social and economic agents, which are reproduced in the organisation of society and family life. Statistics show that women are offered fewer working opportunities, even at the highest levels of academic achievement; employment rates, working opportunities and the transition towards paid work all display gender-related differences in various countries (Caroleo, Ciociano, & Destefanis, 2017; Finn, 2017; Werner & Lundberg, 2018).

Furthermore, young women are generally conscious of the importance of extending education to the female community, and the effect that it has on all areas of their lives, i.e. professional, emotional and personal (Martínez-García, 2007; Thompson, 2019). So, education is seen as a tool of empowerment with the capability of transforming the established order in all facets of people's lives (Cornwall & Rivas, 2015). As well as being key to success in the job market, it may also bring with it economic independence and a sense of autonomy.

At the same time, the problems of unemployment and entrepreneurialism have increased during the period of the economic crisis with a global unemployment rate of 13.8% (15.6% for women); this is far above the EU

average of 7.8% (EUROSTAT, 2019). Andalucía and Extremadura, two South-eastern regions of Spain, traditionally centred around the primary sector, have an unemployment rate of around 20%, which for women increases to 25.1% in Andalucía and 26.9% in Extremadura (<https://countryeconomy.com/unemployment>). This has led to a reaction amongst women to attempt to improve their situation, so that the rate of female entrepreneurial activity has been on the increase since 2005, resulting in a slight decline in the gender imbalance over the past few years, not only on a regional but also a national (Peña-Legazkue, Guerrero, González-Pernía, & Montero, 2019) and also an international (Bosma & Kelley, 2019) level.

Concerning the presence of businesswomen and women entrepreneurs from Southern Europe on social networks, we can see inequality in their online participation as they suffer from a dual digital divide. The first obstacle is the geographical divide, as experienced by the rest of the population in the areas where they are developing their professional activity (Rebollo & Vico, 2014). Furthermore, there is the digital gender divide, which in the case of businesswomen and women entrepreneurs is evident in the choice of when, where and how they use it. Data show that their behaviour is conditioned by their family set-up and that despite being businesswomen and entrepreneurs, they are affected by these digital divides (Martínez-Cantos & Castaño, 2017; Cotten, Anderson, & Tufekci, 2009; Mercier, Barron, & O'Connor, 2006; Tømte and Hatlevik, 2011) and display a lack of digital literacy (Area & Pessoa, 2012; Hatlevik, Throndsen, Loi, & Gudmundsdottir, 2018; Suwana & Lily, 2017).

To all of this is added the effect of a double working day, as the tasks and actions carried out by women are in response to all the demands that are made upon them, in the multiple roles that they fill, and these roles are consistent with what it means, in modern societies, to be a woman. Their access to, and interaction with, social networks is determined by the obligations of their role as care-givers, which limits when, where and how they use them (Rebollo, Vico, & García-Pérez, 2015; Mumporeze & Prieler, 2017).

Digital inclusion of businesswomen and women entrepreneurs

In the 1990s, women used computers less than men due, amongst other factors, to a lack of availability and opportunity, to stereotypically-defined technophobic attitudes (Plant, 1997), to horizontal segregation in the job market -where technology and technical fields were traditionally masculine environments-, to the posts that they held and to inequality in the distribution of domestic responsibilities (Dholakia, Dholakia, & Pedersen, 1994). This lack of experience has led to the erroneous social assumption that men are better equipped to deal with the Internet, (Robinson et. al., 2015) considering women as less efficient in its use and consequently prone to higher levels of anxiety than men in the face of technology (Lim & Teo, 1996; Durndell & Haag, 2002). Some of these factors have contributed to the creation of a digital gender divide which twenty years on is still the focus of much study attempting to eliminate it (Wasserman & Richmond-Abbott, 2005).

More and more women are using social networks. Their presence on them even are higher than of men, the only exception being professional social networks such as LinkedIn (Hargittai, 2015). This data reflects, once again, the difficulties that women face in the working environment (Bettio, Plantenga, & Smith, 2013; WEF, 2018). Even here, in this contradictory situation, social networks play an ever more relevant role for women in general (English & Johns, 2016) and particularly for those who work outside the home, who have training and access to information and who wish to have independence in all areas of their lives. In this sense, virtual communities are used as a tool for active job-seeking, business inspiration exchanges, offers and demands for assessment or for sharing thoughts and ideas about working experiences. These activities, linked to an increase in motivation and a rise in the use of social networks, are reinforcing the level of digital inclusion of women. Thus, it demonstrates that the sustained and advanced use of such tools favours the integration of women in the working environment (Livingston & Helper, 2007).

In addition, training for women in the use of digital tools and the internet is an important element that must be encouraged in a digital, pluralistic and diverse society, particularly if we take into account the complex relationship between women and technology, as documented in the literature (Vitores &

Gil-Juárez, 2016; Rashid, 2016; Padilla-Carmona, Suárez-Ortega, & Sánchez-García, 2016; Leach & Turner, 2015). Currently, Web 2.0 and its tools are able to insist on the idea of Haraway (1985) and Spender (1995) that women can use them to interact, be informed and learn freely at the same time as they develop the necessary skills to use the tools effectively. Although access has increased exponentially, it is not possible to state that women's digital presence has been democratized (Gray, Gainous, and Wagner, 2017) as there is no equality in participation in digital learning spaces, either amongst themselves as a group, or with their male colleagues, and no digital inclusion mechanisms have been generated (Nurhaeni, Yuliarti, & Nugroho, 2017). On the contrary, there has been a widening of both the digital gap amongst women and the digital gender gap, due to current social inequalities in women's lives (Alozie & Akpan-Obong, 2017; Cai, Fan, & Du, 2017) as well as other reasons explored by Pechtelidis, Kosma, & Chronaki (2015) who found, from the range of women present online, that they are not only users of digital media, but that they are also engaged in a struggle against the established power to negotiate their position within the dominant discourse in IT, which, as previously stated, is traditionally associated with masculinity (Cheng & Huang, 2016).

All of the above describes a new scenario of work and education and training, in which women have much to say. It would therefore seem to be the right time to pose some questions on the importance of training and the role played by social networks in providing work opportunities for businesswomen and woman professionals. Thus, in this context of communications, relationships and training, the objectives of our study are the following:

- to ascertain the aims, contexts and ways in which businesswomen and women entrepreneurs use the social networks,
- to identify and design patterns of use related with these aims, contexts and ways,
- to establish the implications of the family composition on the patterns of use of social networks.

Also, related to working opportunities and professional development, differences regarding the supply of infrastructures and resources have arisen, given that Extremadura and Andalucía are geographical areas identified as

priority zones by Europe, but also regarding digital inclusion of the citizenship (Rebollo & Vico, 2014). Such is the relevance of this that the *Digital Agenda for Spain* (Government of Spain, 2013) states that an inclusive society model is necessary for all citizens to be able to benefit from the use and management of communication and information technologies. This means not only generalised access to the Internet and acquiring basic computer skills, but, above all, that people are sufficiently prepared and able to use technologies efficiently and apply those skills to improve their employability and work insertion.

Method

Epistemologically, the study is based on the logical positivism and the hypothetical-deductive method. From a methodological point of view, this research is quantitative and presents a descriptive design.

This study belongs to a wider research of 1340 women, of which 477 were entrepreneurs and 126 were businesswomen. A total of 113 of the businesswomen also considered themselves as entrepreneurs. Ages ranged from 20 to 70 and they had a minimum experience of using virtual social networks of 1 year.

The participants were selected via a non-probability quota sampling method, using the factors of age and socio-demographic profile in relation to their working status and geographical origin.

Table 1 shows the descriptive socio-demographic data of the participants in this study. Five age groups were defined, with most of the participants falling into the intermediary categories (26 to 34 years old, 35 to 44 years old and 45 to 54 years old). The majority of women in the sample have secondary or university studies. Concerning residence, a large percentage of the sample live in urban areas (68.1%).

Table 1

Sociodemographic data

Variables	Categories	Frequencies	Percentage
Age	≤ 25 years	11	9.7%
	26-34 years	30	2.5%
	35-44 years	27	23.9%
	45-54 years	31	27.4%
	55-64 years	14	12.4%

Table 1

Sociodemographic data

Variables	Categories	Frequencies	Percentage
Geographical origin	Urban	77	68.1%
	Rural	36	31.9%
Children	Yes	49	43.4%
	No	64	56.6%
Level of academic achievement	Primary	25	22.1%
	Secondary/Professional training	47	41.6%
	University	41	36.3%
Work status	Student	5	4.5%
	In employment	95	85.6%
	Unemployed	4	3.6%
	Retired	3	2.7%
	Housewife	4	3.6%

Instrument and Procedure

The survey applied to the sample includes the following dimensions:

a) *Socio-demographic characteristics and characteristics of use of technology* which includes questions concerning age, region of origin, place of residence, family situation, level of education, work status and questions

concerning experience of Internet use (social networks, frequency of use, devices, etc.).

b) The dimensions implemented throughout this study are: *Scale of times and frequency of use of social networks*, composed of 12 items linked to times and places where social networks are used; *Scale of routine use and the frequency of use of social networks*, consisting of 15 items related to the activities that are most frequently carried out on social networks.

These scales present a frequency ranging from never (0) to always (3) and are based on the questionnaire used by Eurostat (2017) and previous studies (Area & Pessoa, 2012; He & Li, 2019; Janssen, Stoyanov, Ferrari, Punie, Pannekeet, & Sloep, 2013; Rebollo & Vico, 2014). Analyses made of the scales indicate a high level of reliability (Alpha de Cronbach from .94 and .90, respectively).

To carry out the survey on the women, we worked in collaboration with AUPEX (Association of Popular Universities) in Extremadura and the Instituto Andaluz de la Mujer (Andalusian Women's Institute), as well as women's organisations in Andalucía.

The survey was designed and collected in an electronic format, using *Google Form* and in paper form, and included information about the reasons behind the research. Although participation was anonymous, the participants' consent was requested, and their authorization for academic exploitation of the information supplied. Confidentiality was maintained at all times for those who took part in the data-gathering.

Results

The results below are the response to the objectives and hypotheses given previously.

In relation to the objectives, the technological profile of the sample is described as follows.

In table 2, we can see that 92.4% of the sample have more than 2 years' experience of using the internet, with 84.7% using it on a daily basis. The preferred device is the mobile phone for 57.1% of the women, and although they use other equipment such as desktops, laptops or tablets, 91.2% use only

a single device. Of the women surveyed, 41.6% said that they had received IT training within the previous three years. A notable 81.7% had received that training through formal channels (formal education) and regulated training programmes.

Table 2
Description of technology use

Variables	Categories	Frequencies	Percentage
Experience of using the Internet	< 1 year	3	2.7%
	1-2 years	5	4.4%
	2-5 years	20	17.7%
	> 5 years	85	75.2%
Frequency of using the Internet	Monthly	5	4.5%
	Weekly	12	10.8%
	Daily	94	84.7%
Device used	Desktop	17	18.7%
	Laptop	20	22%
	Mobile phone	52	57.1%
	Tablet	2	2.2%
Availability of device	Exclusive use	103	91.2%
	Shared use	10	8.8%
IT training (last 3 years)	Yes	47	41.6%
	No	66	58.4%
Type of training	Formal	38	77.6%
	Informal	9	18.4%
	Formal and informal	2	4.1%

Concerning the use of social networks, we can observe (Table 3) that the most frequently used is *WhatsApp*, with 92% of businesswomen and entrepreneurial women saying that they use it on a daily basis. This is a clear reminder of the scant influence of *LinkedIn* amongst the women of the sample, only 4.6% of whom said that they used it every day.

Table 3
Use of social Networks

Variables	Categories	Frequencies	Percentage
LinkedIn	Never	83	76.1%
	Rarely	13	11.9%
	Weekly	8	7.3%
	Daily	5	4.6%
Facebook	Never	3	2.7%
	Rarely	9	8.0%
	Weekly	27	23.9%
	Daily	74	65.5%
Twitter	Never	59	53.6%
	Rarely	24	21.8%
	Weekly	15	13.6%
	Daily	12	10.9%
WhatsApp	Never	1	0.9%
	Rarely	1	0.9%
	Weekly	7	6.3%
	Daily	103	92.0%
Instagram	Never	65	59.6%
	Rarely	14	12.8%
	Weekly	11	10.1%
	Daily	19	17.4%
YouTube	Never	16	14.3%
	Rarely	27	24.1%
	Weekly	48	42.9%
	Daily	21	18.8%

The process used to make the referential analysis is as follows ([Cubo, Martin, & Ramos, 2011](#)):

1. Trends in results are displayed in graphs. The horizontal axis shows the variable studied, and the vertical axis gives the results obtained in the series of data, taking into account the theoretical minimums and maximums of distribution.

2. When the dependent variable is measured on a scale of interval or reason, the following tests are applied in order to decide whether it is necessary to use a parametrical or non-parametrical test:

- *Kolmogorov-Smirnov*, to verify the null hypothesis that the theoretical distribution in the population is normal.
- *Rachas*, to verify the null hypothesis that the theoretical distribution in the population is random.
- *Levene*, to verify the null hypothesis related to equality of variances among the different variables analysed.

3. The necessary statistical model is applied to verify the working hypothesis.

4. An answer is given to the verification made of the null hypothesis and therefore to the working hypothesis.

For each hypothesis, a graph is first shown displaying the data trends, then the test used and the results obtained.

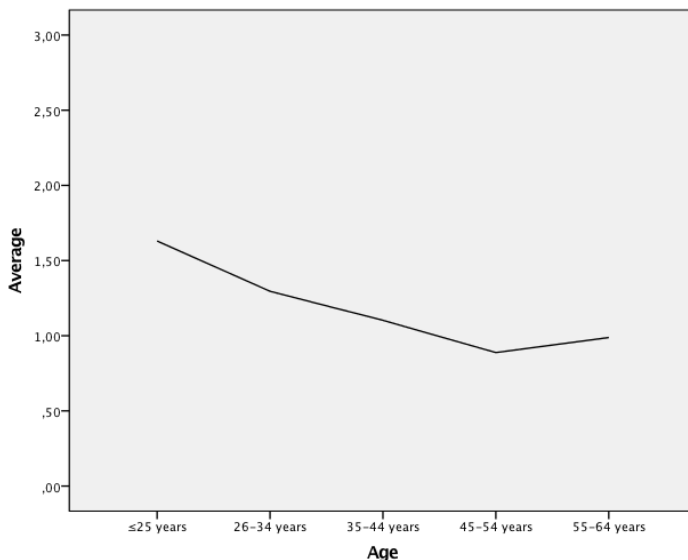
The general starting hypothesis is that businesswomen and women entrepreneurs use social networks more diversely in terms of forms of use and in a wider variety of contexts. This general hypothesis is more specifically defined through the following sub-hypotheses:

Hypothesis 1. Businesswomen and women entrepreneurs use social networks more diversely in terms of forms of and in a wider variety of contexts depending on their age.

1. Verification of diversity of use

Figure 1

Age group and diversity of forms of use of social networks



Kruskal-Wallis Test H. Null hypothesis is rejected ($p < 0.05$). Significant statistical differences were obtained between the value groups of 25 years old or less, 26 to 35 years old and 35 to 44 years, in terms of the diversity of forms of use of social networks.

2. Verification with variety of contexts.

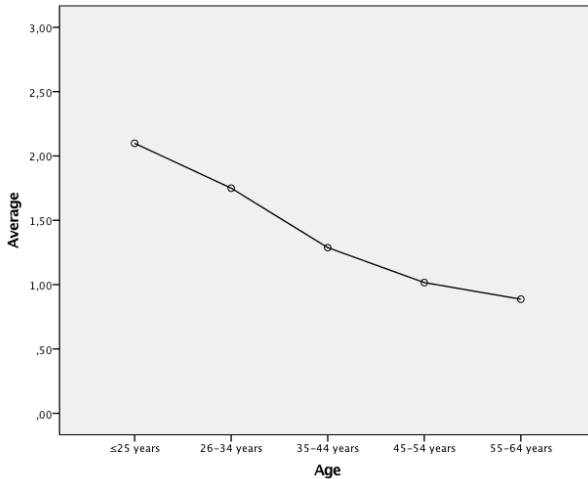
A. In relation to place of use

Pearson's Chi-squared Test. We accept the null hypothesis ($p > 0.05$), that there is no relation between age and place of use of social networks.

B. In relation to the time of use of social networks

Figure 2

Age group and time of use of social networks



Kruskal-Wallis Test H. Null hypothesis is rejected ($p < 0.05$). Significant statistical differences were obtained in relation to time of use of social networks among all age groups with the exception of:

- 25 years old or less and 26 to 34 years old.
- 35-44 years old – 45 to 54 years old – 55 to 64 years old.
- 45 to 54 years old and 55 to 64 years old.

The working hypothesis therefore is partially accepted.

Hypothesis 2. Businesswomen and women entrepreneurs use social networks in a wider variety of contexts depending on their age and their family situation.

Figure 3
Family composition, age and time of use of social networks

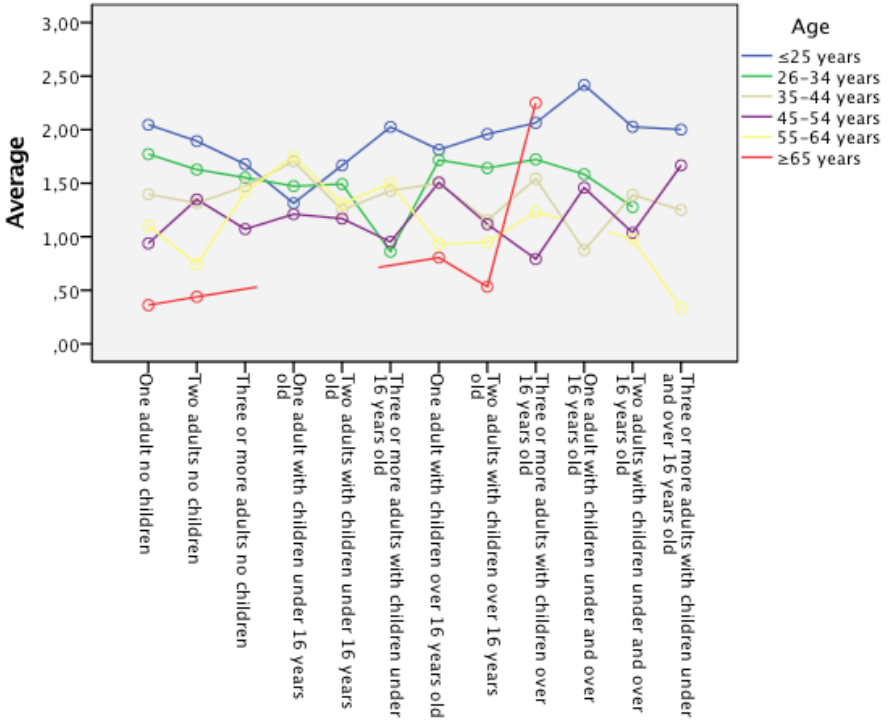


Table 4

Results Age, Composition of the Home, Times of Use of Social Networks

Tests of inter-subject effects

Dependent variable: Moments_average

Origin	Total of squares type III	df	Quadratic average	F	Sig.
Adjusted model	206,940 ^a	62	3,338	9,291	,000
Intersection	370,009	1	370,009	1029,983	,000
Age	34,569	5	6,914	19,246	,000
Family set-up	3,063	11	,278	,775	,665
Age * Family set-up	24,350	46	,529	1,474	,023
Error	433,600	1207	,359		
Total	3082,780	1270			
Adjusted total	640,539	1269			

a. R square = ,323 (R adjusted square = ,288)

The null hypothesis is rejected for the variable Age. The null hypothesis is accepted for the variable Family set-up. There is interaction between the variables Age and Family set-up in relation to time of use of social networks. Significant statistical differences were obtained in relation to the time of use of social networks among all age groups with the exception of:

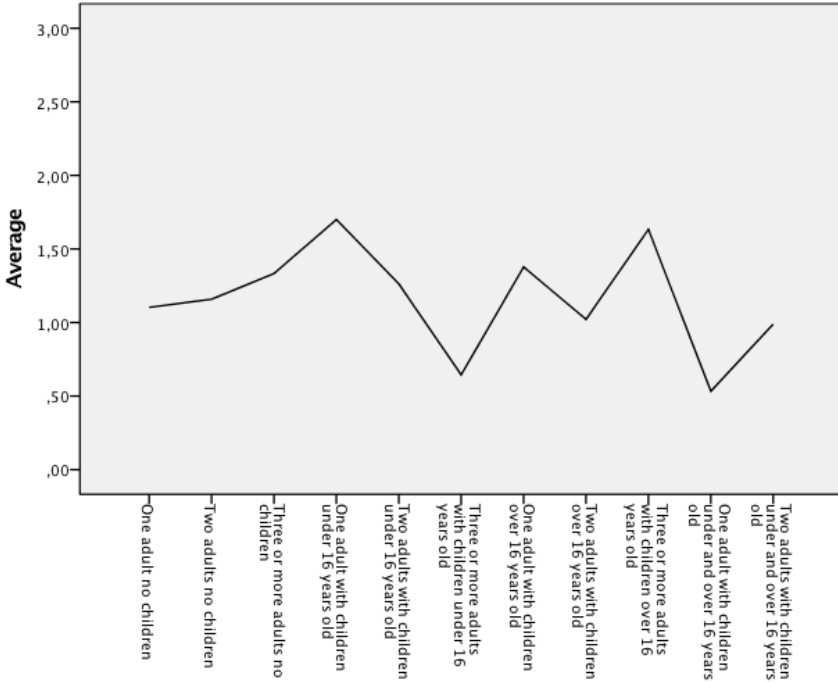
- -25 years old or less and 26 to 34 years old.
- -35-44 years old – 45 to 54 years old – 55 to 64 years old.
- -45 to 54 years old and 55 to 64 years old.

The working hypothesis is partially accepted.

Hypothesis 3. Businesswomen and women entrepreneurs use social networks more diversely and in a wider variety of contexts depending on family composition.

1. Verification with variety of use

Figure 4
Family composition and diversity of use of social networks



Kruskal-Wallis Test H. The null hypothesis is accepted ($p > 0.05$), there are no significant statistical differences between family compositions and diversity of use of social networks.

2. Verification with variety of contexts

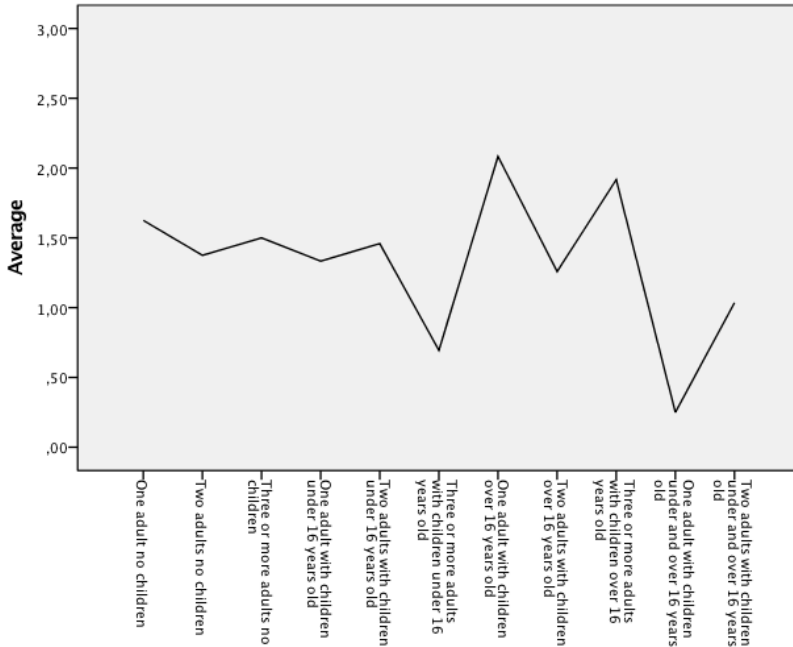
A. In relation to place of use

Pearson's chi-squared Test. We accept the null hypothesis ($p > 0.05$), that there is no relation between family composition and place of use of social networks.

B. In relation to the time of use of social networks

Figure 5

Family composition and the time of use of social networks



Kruskal-Wallis Test H. Null hypothesis is rejected ($p < 0.05$), as there are significant statistical differences between family compositions and times of use of social networks.

The working hypothesis is accepted for certain values of the variable Contexts of use of social networks in relation to family composition, although it is rejected for the variable Diversity of forms of use.

Hypothesis 4. Businesswomen and women entrepreneurs use social networks in a wider variety of contexts depending on family composition, level of academic achievement and marital status.

The General Linear Model used reveals these descriptive results as a result of the interaction of the analyzed variables.

Figure 6
Marital status, family composition and time of use of social networks

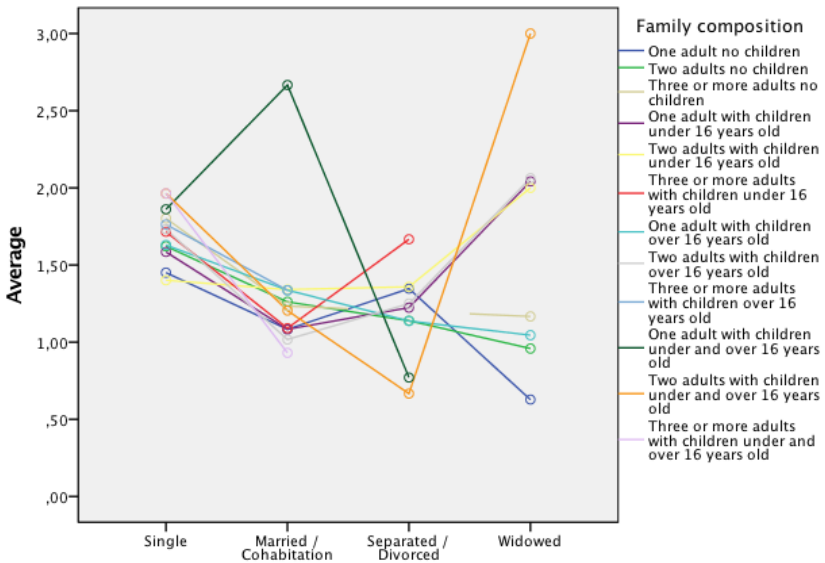


Figure 7

Level of academic achievement, family composition and time of use of social networks

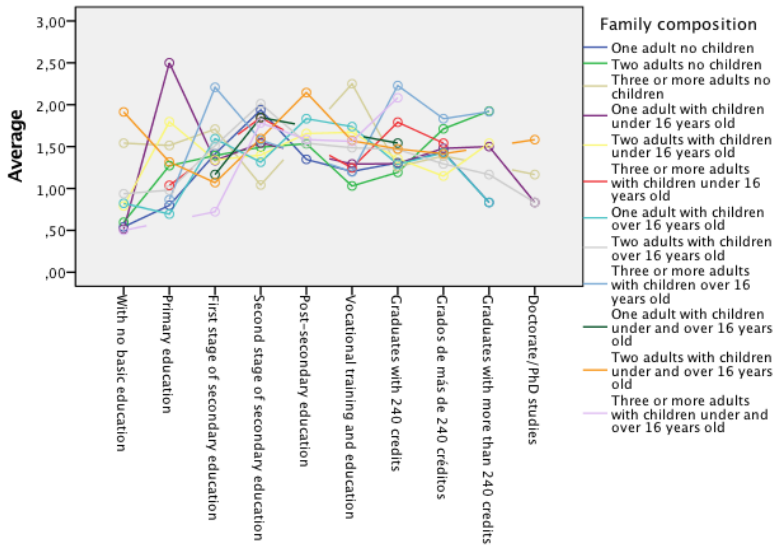


Figure 8

Marital status, level of academic achievement and time of use of social networks

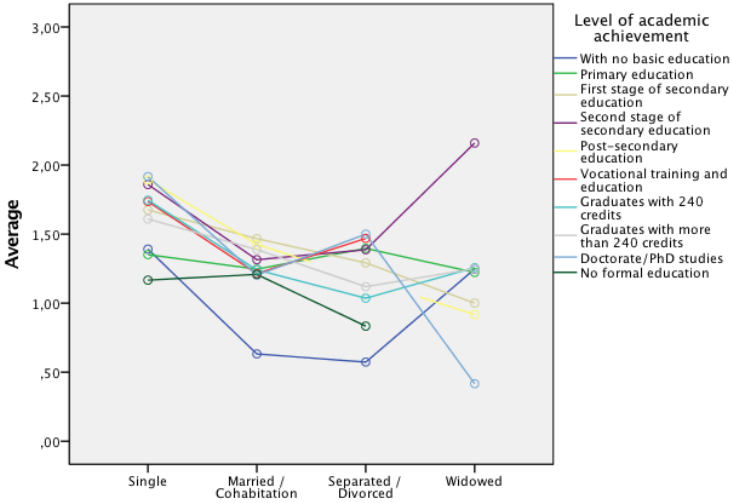


Table 5 shows the results of the ANOVA performed in relation to the main effects and interaction of the variables studied.

Table 5

Results Composition of the home, marital status, level of academic achievement and average times of use from the social networks

Test of inter-subject effects

Dependent variable: Moments average

Origin	Total of squares type III	gl	Quadratic average	F	Sig.
Adjusted model	230,524 ^a	202	1,141	2,991	,000
Intersection	205,735	1	205,735	539,231	,000
Family set-up	3,577	11	,325	,852	,588
Marital status	10,140	3	3,380	8,859	,000
Academic level	10,241	9	1,138	2,982	,002
Family set-up * Marital status	17,418	26	,670	1,756	,011
Family set-up * Academic level	38,255	69	,554	1,453	,011
Marital status * Academic level	8,285	21	,395	1,034	,418
Family set-up * Marital status * Academic level	28,997	60	,483	1,267	,087
Error	404,044	1059	,382		
Total	3066,079	1262			
Adjusted total	634,568	1261			

a. R square = ,363 (R square corrected = ,242)

There is interaction between the variables Family composition and Marital status, as there is also between Family composition and Level of academic achievement, in relation to time of use of social networks. There is no interaction between either the variables Marital status and Level of studies, nor the variables Family composition, Marital status and Level of academic achievement concerning time of use of social networks.

In reference to the variable Marital status, some significant statistical differences between Single, Married or Cohabitation, Separated or Divorced, or Widowed, concerning time of use of social networks are noted.

With regard to Level of academic achievement, it can be seen significant statistical differences between:

- No level attained and First stage of Secondary Education, Second stage of Secondary Education, Further Education, Professional training and education, University graduates at 240 credits and University graduates at more than 240 credits.
- Primary Education and Second stage of Secondary Education, Professional training and education, University graduates at 240 credits and University graduates at more than 240 credits.
- So, the working hypothesis is therefore partially accepted.

Conclusions

Businesswomen and women entrepreneurs' experiences are limited in their inclusion in the world of technology due to the digital divide, which in this case, is characterised by gender, but also by social and personal factors. The data show that the origin of this lack of inclusion is not only instrumental - accessing and mastering digital technologies- but fundamentally social. Family composition affects the times and length of time that women connect, the fact that they have double or triple working days, as well as the fact that prioritising domestic tasks over professional tasks limits and conditions their possibilities of digital inclusion. This leads us to the conclusion that this is not a problem of lack of training and/or skill in using the various digital tools, but a deeper problem that requires political decisions to be taken concerning the promotion of equal opportunities.

Additionally, the forms of use of social networks by businesswomen and women entrepreneurs varies according to age-group. The diversity of use (the reasons for which they use them) is wider among the younger age-groups, whereas this narrows for the groups 35-44 years old and 45-54 years old. From the age of 50 years old upwards this activity widens again. It is possible that these significant differences in relation to time of use of social networks, across all age-groups, with the exception of the 26-34 age-group, may be explained by family-centred tasks and responsibilities. These domestic tasks may extend to include not only children, but also older family-members,

especially if we take into account that the average age of achieving motherhood in Spain in 2018 was 32.19 years old.

According to age-group, by comparing it with the data on composition of the family home, these differences in use can be confirmed. Also, concerning women whose home includes (one or more) children under the age of 16 (whether there are one, two or three adults), the use of social networks occurs during working hours, with the highest averages during the first and the last hours of the working day.

However, the age does not appear to have any impact on the places where social networks are used. This gives the impression that consulting and updating of social networks takes place on the mobile phone, and so the place in which this activity is carried out has little relevance (as it would have if it were done from a computer).

In relation to the level of academic achievement, this does not appear to be a factor that influences either diversity of forms of use, or diversity of context of use (place and time of use) of social networks by businesswomen and women entrepreneurs.

Hence, on closer examination of the impact that family composition may have on diversity of use (the reasons for using them) and a wider variety of contexts of use of social networks, it can be stated, once again, that the configuration of the family unit is significant. In particular, the time of use of social networks is considerably reduced in scope in the following family configurations:

- One adult with children under and over 16 years old.
- Three or more adults with children under 16 years old.
- Two adults with children under and over 16 years old.

The configuration of the family unit determines the presence and the level of participation of women on social networks, which has repercussions on both working life (promotion, stability and success) and family life (work-life balance). This highlights the fact that women are still experiencing this double working day, in which time is not entirely dedicated to the family environment, nor to the working environment, but that there is a constant switching between the two, family concerns invading professional time and vice-versa. It seems that harmonization could be one of the main factors weighing on the ability to maintain a working position when it comes to

businesswomen and women entrepreneurs. Mainly, due to that this type of role often implies being available for "longer" working days, as well as geographical mobility, which means accepting both professional costs and personal costs (giving up certain things and providing extra effort), when professional activities and family responsibilities are combined. To these are added identifiable structural factors which hold women back in their efforts at enterprise: access to finance, a lack of references and visibility for women entrepreneurs and the scarcity of support networks (Crittenden, Crittenden, & Ajjan, 2019; Vial & Richomme-Huet, 2017).

Furthermore, the level of immediacy that digital culture requires is, in many cases, incompatible with the logistics of family management, in spite of the ubiquitous nature of the networks, the availability of the internet and synchronised digital tools. Living time is separate from internet time, management of the latter having different demands, in the same way that available time is perceived differently by men and women (Durán, 2010).

For these reasons, training for businesswomen and women entrepreneurs should be more specifically centred around promoting more productive and proactive habits concerning digital technology, with as a starting-point, a more detailed examination of how to manipulate digital tools, taking into account life experience, personal and business learning networks (O'Neill & O'Gorman, 2020), and previous knowledge, aiming for what is actually needed to carry out their work. For this training, it is also necessary to give support to the diversification of training contexts (Jiménez, Rebollo, & García, 2016; Rebollo, Vico, & García-Pérez, 2015; Del Moral-Espín & Pais, 2018), and to the confluence of formal and informal learning contexts, in addition to a greater use of emerging technological resources and practices. This will, without a doubt, favour the acquisition of digital skills, and increase the level of digital inclusion and the entrepreneurial success (Indrupati & Henari, 2012).

In order to achieve this, policies on digital inclusion must be updated to promote gender equality, fostering a combination of mutually supportive legislative, political and social measures, by prioritising actions aimed at responding in a very real way to the needs and demands of businesswomen and women entrepreneurs (Orser, Riding, & Li, 2019). These state strategies must also adapt to these women's situations and press to increase their presence

and visibility on Web 2.0, in order to boost women's digital participation and allow their points of view and arguments to be heard in the face of the hegemonic culture dominant in technology which makes women invisible, as pointed Del Moral-Espín and Pais (2018). Since using technology, citizenship skills are developed and the foundations are laid for the appropriation of technology (Ragnedda & Muschert, 2013). Both of these are indispensable requisites for digital empowerment and digital inclusion for women as full citizens and workers in their own right.

Acknowledgements

We wish to thank all anonymous women's participating in the study both the Andalusian Women's Institute and the Association of Popular Universities of Extremadura. The authors disclosed receipt of the following financial support for the research, authorship, and/ or publication of this article: This research was supported by the Spanish State Plan of Technical and Scientific Research Innovation, 2013-2016 (EDU-2013-45134-P).

References

- Alozie, N. O. & Akpan-Obong, P. (2017). The digital gender divide: Confronting obstacles to women's development in Africa. *Development Policy Review*, 35(2), 137-160. <https://doi.org/10.1111/dpr.12204>
- Area, M. & Pessoa, T. (2012). From Solid to Liquid: New Literacies to the Cultural Changes of Web 2.0. *Comunicar*, 19(38), 13-20. <https://doi.org/10.3916/C38-2012-02-01>
- Bettio, F., Plantenga, J. & Smith, M. (Eds) (2013). *Gender and the European labour market*. Oxon, Routledge.
- Bosma, N. & Kelley, D. (2019). *2018/19 Global Report. Global Entrepreneurship Monitor (GEM)*. <http://www.gemconsortium.org/report/49480>
- Cai, Z., Fan, X., & Du, J. (2017). Gender and attitudes toward technology use: A meta-analysis. *Computers and Education*, 105, 1-13. <https://doi.org/10.1016/j.compedu.2016.11.003>
- Caroleo, F. E., Ciociano, E., & Destefanis, S. (2017). Youth labour-market performance, institutions and VET systems: a cross-country analysis. *Italian Economic Journal*, 3(1), 39-69. <https://doi.org/10.1007/s40797-016-0045-8>

- Charles, M. & Bradley, K. (2009). Indulging our gendered selves? Sex segregation by field of study in 44 countries. *American journal of sociology*, 114(4), 924-976. <https://doi.org/10.1086/595942>
- Cheng, C-C. & Huang, K-H. (2016). Stereotypes and technology education: different perceptions of computer career among elementary school students. *Journal of Baltic Science Education*, 15(3), 271-283. <http://journals.indexcopernicus.com/abstract.php?icid=1211237>
- Cornwall, A. & Rivas, A. (2015). From ‘gender equality and ‘women’s empowerment’ to global justice: Reclaiming a transformative agenda for gender and development. *Third World Quarterly*, 36(2), 396-415. <https://doi.org/10.1080/01436597.2015.1013341>
- Cotton, S. R., Anderson, W. A. & Tufekci, Z. (2009). Old wine in a new technology, or a different type of digital divide?. *New Media and Society*, 11(7), 1163-1186. <https://doi.org/10.1177/1461444809342056>
- Crittenden, V. L., Crittenden, W. F. & Ajjan, H. (2019). Empowering women micro-entrepreneurs in emerging economies: The role of information communications technology. *Journal of Business Research*, 98, 191-203. <https://doi.org/10.1016/j.jbusres.2019.01.045>
- Cubo, S., Martín, B. & Ramos, J. L. (2011). *Métodos de investigación y análisis de datos en Ciencias Sociales y de la Salud*. Madrid, Ediciones Pirámide.
- Del Moral-Espín, L. & Pais, I. (2018). Feminization of labour, defeminization of time banks: Digital time banking and unpaid virtual work. *International Journal of Media and Cultural Politics*, 14(1), 55-75. https://doi.org/10.1386/macp.14.1.55_1
- Dhalokia, R. R., Dhalokia, N. & Pedersen, B. (1994). Putting a Byte in the Gender Gap. *American Demographics*, 16, 20-21.
- Durán, M. A. (2010). *Tiempo de vida y tiempo de trabajo*. Bilbao, Fundación BBVA.
- Durndell, A. & Haag, Z. (2002). Computer self-efficacy, computer anxiety, attitudes towards the Internet and reported experience with the Internet, by gender, in an East European sample. *Computers in Human Behavior*, 18(5), 521-535. [https://doi.org/10.1016/S0747-5632\(02\)00006-7](https://doi.org/10.1016/S0747-5632(02)00006-7)
- English, R. & Johns, R. (Eds) (2016). *Gender Considerations in Online Consumption Behavior and Internet Use*. Hershey, IBI Global.

- Eurostat (2019). Harmonised unemployment rate by sex. *Eurostat Database*. <https://ec.europa.eu/eurostat/tgm/refreshTableAction.do?tab=table&plu gin=1&pcode=teilm020&language=en>
- Finn, K. (2017). Relational transitions, emotional decisions: new directions for theorising graduate employment. *Journal of Education and Work*, 30(19), 419-431. <https://doi.org/10.1080/13639080.2016.1239348>
- Gobierno de España (2013). *Agenda digital para España*. <http://www.agendadigital.gob.es/agenda-digital/Paginas/agenda-digital.aspx>
- Gray, T. J., Gainous, J., & Wagner, K. M. (2017). Gender and the digital divide in Latinamerica. *Social Science Quarterly*, 98(1), 326-340. <https://doi.org/10.1111/ssqu.12270>
- Gutiérrez-Esteban, P. & Luengo-González, M. R. (2011). Transition to the labour market of women teachers at the University of Extremadura, *Feministische Studien*, 29(1), 92-99. <https://doi.org/10.1515/fs-2011-0109>
- Haraway, D. (1985). A Manifesto for Ciborgs: Science, Technology, and Socialist Feminism in the 1980s. *Socialist Review*, 15(2), 65-108.
- Hargittai, E. (2015). Is bigger always better? Potential biases of big data derived from social network sites. *The ANNALS of the American Academy of Political and Social Science*, 659, 63-76. <https://doi.org/10.1177/0002716215570866>
- Hatlevik, O. E., Throndsen, I., Loi, M., & Gudmundsdottir, G. B. (2018). Students' ICT self-efficacy and computer and information literacy: Determinants and relationships. *Computers and Education*, 118, 107-119. <https://doi.org/10.1016/j.compedu.2017.11.011>
- He, T. & Li, S. (2019). A comparative study of digital informal learning: The effects of digital competence and technology expectancy. *British Journal of Educational Technology*, 50(4), 1744-1758. <https://doi.org/10.1111/bjet.12778>
- Indrupati, J. & Henari, T. (2012). Entrepreneurial success, using online social networking: evaluation. *Education, Business and Society: Contemporary Middle Eastern Issues*, 5(1), 47-62. <https://doi.org/10.1108/17537981211225853>

- Janssen, J., Stoyanov, S., Ferrari, A., Punie, Y., Pannekeet, K., & Sloep, P. (2013). Experts' views on digital competence: Commonalities and differences. *Computers & Education*, 68, 473-481. <https://doi.org/10.1016/j.compedu.2013.06.008>
- Jiménez, R., Rebollo, Á., & García, R. (coords.) (2016). *Aprendizaje con TIC para la inclusión digital. Las mujeres como tejedoras de las redes sociales*. Madrid, Editorial Síntesis.
- Leach, L. & Turner, S. (2015). Computer users do gender: the co-production of gender and communications technology. *Sage Open*, 5(4), 1-15. <https://doi.org/10.1177/2158244015604693>
- Lim, V. K. G. & Teo, T. S. H. (1996). Gender differences in occupational stress and coping strategies among IT personnel. *Women in Management Review*, 11(1), 20-28. <https://doi.org/10.1108/09649429610109299>
- Livingstone, S. & Helsper, E. (2007). Gradations in digital inclusion: children, young people and the digital divide. *New Media & Society*, 9(4), 671-696. <https://doi.org/10.1177/1461444807080335>
- Martínez-Cantos, J. L. & Castaño, C. (2017). La brecha digital de género y la escasez de mujeres en las profesiones TIC. *Panorama Social*, 25, 49- 65.
- Martínez-García, J. S. (2007). Clase social, género y desigualdad de oportunidades educativas. *Revista de Educación*, 342, 287-306. <http://hdl.handle.net/11162/68976>
- Martínez-Pastor, J. I. (2017). Employability of higher education graduates in Spain: crisis and new challenges. *Forum Sociológico*, 31, 21-36. <https://doi.org/10.4000/sociologico.1829>
- Mercier, E. M., Barron, B., & O'Connor, K. M. (2006). Images of self and others as computer users: The role of gender and experience. *Journal of Computer Assisted Learning*, 22(5), 335-348. <https://doi.org/10.1111/j.1365-2729.2006.00182.x>
- Mumporeze, N. & Prieler, M. (2017). Gender digital divide in Rwanda: A qualitative analysis of socioeconomic factors. *Telematics and Informatics*, 34(7), 1285-1293. <https://doi.org/10.1016/j.tele.2017.05.014>
- Nurhaeni, I. D., Yuliarti, M. S., & Nugroho, R. A. (2017). Measuring gender differences in Information system use: case study of e-government. *AIP*

Conference Proceedings, 1746(1), 20068.1-20068.7.
<https://doi.org/10.1063/1.4953993>

- O'Neill, A., & O'Gorman, B. (2020). Academic support for female entrepreneurs: the positive lasting effects of learning networks”, in Smith, H. L., Etzkowitz, H., & Poulouvasilis, A., *Gender, Science and Innovation. New Perspectives*. (pp. 146–167). Cheltenham, Edward Elgar Publishing.
- Orser, B., Riding, A., & Li, Y. (2019). Technology adoption and gender-inclusive entrepreneurship education and training. *International Journal of Gender and Entrepreneurship*, 11(3), 273-298.
<https://doi.org/10.1108/IJGE-02-2019-0026>
- Padilla-Carmona, M.T., Suarez-Ortega, M., & Sánchez-García, M. F. (2016). Digital inclusion of mature students: analysis of their attitudes and ICT competences. *Revista Complutense de Educación*, 27(3), 1229-1246.
<http://hdl.handle.net/11441/49756>
- Pechtelidis, Y., Kosma, Y., & Chronaki, A. (2015). Between a rock and a hard place: women and computer technology. *Gender and Education*, 22(2), 164-182. <https://doi.org/10.1080/09540253.2015.1008421>
- Peña-Legazkue, I., Guerrero, M., González-Pernía, J. L., and Montero, J. (2019). *Global Entrepreneurship Monitor: Informe GEM España 2018-2019*. Santander, Editorial de la Universidad de Cantabria.
<http://www.gem-spain.com/wp-content/uploads/2019/05/GEM2018-2019.pdf>
- Plant, S. (1997). *Zeros and Ones: Digital Women and the New Technoculture*. London, Fourth Estate.
- Ragnedda, M. & Muschert, G.W. (Eds) (2013). *The digital divide: The Internet and social inequality in international perspective*. Oxford, Routledge.
- Rashid, A. T. (2016). Digital inclusion and social inequality: gender differences in ICT access and use in five developing countries. *Gender, Technology & Development*, 20(3), 306-332.
<https://doi.org/10.1177/0971852416660651>
- Rebollo, A., Vico, A. & García-Pérez, R. (2015). El aprendizaje de las mujeres de las redes sociales y su incidencia en la competencia digital. *Prisma Social*, 15, 122-146. <http://hdl.handle.net/11441/43721>

- Rebollo, M. & Vico, A. (2014). Perceived Social Support as a Factor of Rural Women's Digital Inclusion in Online Social Networks. *Comunicar*, 21(43), 173-180. <https://doi.org/10.3916/C43-2014-17>
- Robinson, L., Cotten, S. R., Ono, H., Quan-Haase, A., Mesch, G., Chen, W., Schulz, J., Hale, T. M., & Stern, M.J. (2015). Digital inequalities and why they matter. *Information Communication and Society*, 18(5), 569-582. <https://doi.org/10.1080/1369118X.2015.1012532>
- Spender, D. (1995). *Nattering on the Net: Women, Power and Cyberspace*. Melbourne, Spinifex.
- Suwana, F. & Lily (2017). Empowering Indonesian women through building digital media literacy. *Kasetsart Journal of Social Sciences*, 38(3), 212-217. <https://doi.org/10.1016/j.kjss.2016.10.004>
- Tellhed, U., Backstrom, M., & Bjorklund, F. (2017). Will I fit in and do well? The importance of social belongingness and self-efficacy for explaining gender differences in interest in STEMa and HEED Majors. *Sex Roles*, 77(2), 86-96. <https://doi.org/10.1007/s11199-016-0694-y>
- Thompson, R. (2019). *Education, Inequality and Social Class: Expansion and Stratification in Educational Opportunity*. London, Routledge. <https://doi.org/10.4324/9781315141749>
- Tømte, C. & Hatlevik, O. E. (2011). Gender-differences in self-efficacy ICT related to various ICT-user profiles in Finland and Norway. How do self-efficacy, gender and ICT-user profiles relate to findings from PISA 2006. *Computers and Education*, 57(1), 1416-1424. <https://doi.org/10.1016/j.compedu.2010.12.011>
- Vial, V. & Richomme-Huet, K. (2017). Women entrepreneurs in France. *International Journal of Entrepreneurship and Small Business*, 30(1), 80-109. DOI: 10.1504/IJESB.2017.081034
- Vitores, A. & Gil-Juárez, A. (2016). The trouble with “women in computing”: a critical examination of the deployment of research on the gender gap in computer science. *Journal of Gender Studies*, 25(6), 666-680. <https://doi.org/10.1080/09589236.2015.1087309>
- Wasserman, I. M. & Richmond-Abbott, M. (2005). Gender and the internet: Causes of variation in access, level, and scope of use. *Social Science Quarterly*, 86(1), 252-270. <https://www.jstor.org/stable/42956060>

- Werner, A. & Lundberg, A. (2018). Gender jobs: Dilemmas of Gender Studies education and employability in Sweden. *European Journal of Women's Studies*, 25(1), 71-85. <https://doi.org/10.1177/1350506816671162>
- World Economic Forum (WEF) (2018). *Global Gender Gap Report 2018*. Geneva, WEF. http://www3.weforum.org/docs/WEF_GGGR_2018.pdf

Prudencia Gutiérrez-Esteban Universidad de Extremadura (España)
ORCID ID: <https://orcid.org/0000-0001-5328-5319>

Francisco de Paula Rodríguez-Miranda: Universidad de Huelva
(España)
ORCID ID: <https://orcid.org/0000-0002-8167-8811>

Sixto Cubo-Delgado: Universidad de Extremadura (España)
ORCID ID: <https://orcid.org/0000-0001-8802-9980>

María Lourdes Hernández-Rincón: Universidad de Extremadura
(España)
ORCID ID: <https://orcid.org/0000-0003-1056-6465>

Contact Address: pruden@unex.es