Collaborative learning in environments with restricted access to the internet: Policies to bridge the digital divide and exclusion in prisons through the development of the skills of inmates

María Barreiro-Gen [a,*], Isabel Novo-Corti [b,1]

[a] Economic Development and Social Sustainability Research Unit, Department of Economic Analysis and Business Administration, Faculty of Economics and Business, University of A Coruna, Campus of A Coruña, Elviña s/n – 15071, A Coruña, Spain
[b] Economic Development and Social Sustainability Research Unit, University Institute of Maritime Studies, Department of Economic Analysis and Business Administration, Faculty of Economics and Business, University of A Coruna, Campus of A Coruña, Elviña s/n – 15071, A Coruña, Spain

ARTICLE INFO

ABSTRACT

The deprivation of freedom for the prisoners, involves not only physical isolation, but also digital, which implies a strong isolation particularly painful in an "information society". Spanish prison population is deprived of access Internet and all ICT that could contact inmates with outdoor life, this is mainly due to security issues. Not having enough ICT skills is a new cause of social exclusion. The objective of this research was to identify the key issues which should be focused by policy makers to avoid digital divide among prison population. A survey among inmate population in all the five penitentiary centers in Galicia, in the northwest of Spain, was undertaken to obtain a sample of 380 inmates. A Structural Equation Model (SEM) was carried out to explain prisoners' ICT Skills, in bias to inmate's social skills, general skills and attitude towards collaborative learning. For inmates, who are characterized by their low education level, results shown the relevance of having general and social skills to be able to have more ICT skills. Then, collaborative learning in prison it is shown as a way to bridge both walls: the physical (better reinsertion and no recidivism) and the digital one.

© 2015 Elsevier Ltd. All rights reserved.

1. Introduction

Prison population constitutes a group at social exclusion risk. They usually have other causes of exclusion, as belonging to minority group (Gago-Cortés & Novo-Corti, in press). Not having necessary ICT skills to use easily new technologies is a new cause of social exclusion. Living without freedom in jail in the "Information Society", implies quite total isolation with respect to the new progress that can be taken place. Spanish prison population cannot have access neither to Internet nor the rest of new technologies that are been developed. The most important reason of this is the security issues.

Theoretical models proposed by scientific literature have started to incorporate this new factor of exclusion. This is the case of Helsper's model (2012). Moreover, international organizations and governments, at all levels and in many areas of the world (Wong, Fung, Law, Lam, & Lee, 2009), are developing programs to avoid digital exclusion. One of the main reason is the important role that new technologies are playing in key areas as work. For instance, European Commission has elaborated a Digital Agenda for Europe. Each Member State has made an own Agenda (European Commission, 2013). However, a specific program for inmates has not been designed (Novo-Corti & Barreiro-Gen, 2014b). Therefore, it is necessary to study how to act to help this group to avoid social exclusion, and more specifically, to avoid digital exclusion, when they leave prison.

The objective of this research is to analyze the main factors to explain the inmates' ICT skills in Spain, in a specific area: the region of Galicia, in the northwest of this country.

2. Digital divide and social exclusion

In the middle 70s the concept of social exclusion (Silver, 1994) arises as an attempt to refine and broaden the concept of poverty (Atkinson, 2000), which had traditionally been primarily focused on deficiencies and shortages in economic sense. The exclusion is understood as more linked with inequality and privation than with deficit on access to certain goods or services (Sen, 2000). In the 80s this concept appears in the elaboration of public policies by the European Commission (Wilson, 2006). Like what happened with

* Corresponding author. Tel.: +34 981167000x2407.
E-mail addresses: maria.gen@udc.es (M. Barreiro-Gen), Isabel.novo.corti@udc.es (I. Novo-Corti).
[1] Tel.: +34 981167000x2445.

social exclusion, at first, the digital divide was defined on the basis of economic or technical access barriers to access to ICT (information and communication technologies), and subsequently it were concluded personal motivations, that should be included in the analysis (Barreiro-Gen, Novo-Corti, & Varela-Candamio, 2011; Zillien & Hargittai, 2009).

Most theoretical models of social exclusion include variables such as income, employment, education and health (Gallie, Paugam, & Jacobs, 2003; Naraine & Lindsay, 2011). Helsper (2012), taking into account the main variables included in studies dealing with social exclusion, a theoretical model that relates the exclusion traditional sense (offline) with digital exclusion (online). Four key areas have been considered as determinants of social and digital exclusion: the economic area, cultural area, social area and personal area. Helsper considers that such theoretical model is widespread and may be applied to diverse groups and backgrounds, as long as the features that correspond to each of them will be taken into account. Novo-Corti and Barreiro-Gen (2014b) have applied this theoretical model to the group of the inmate population in Spain, with the aim of facilitating the development of public policies aimed at digital inclusion. These authors have reached the following conclusions: The lack of access to ICTs in Spanish prisons acts as social exclusion factors influencing crucially on the digital exclusion of convicts. Thus, people living at prison cannot improve their situation with respect to any of the areas highlighted as important in avoiding digital exclusion because they have been denied the possibility to access to ICT technologies. Therefore, some lines of policy action have been proposed. Those lines are mainly related to the compatibility of the need for security at prison and the fight against digital exclusion. Some of those main lines include basic computer training, simulated navigation or restricted Internet access.

3. Prison population and ICT

3.1. Prison population in Spain

The estimated rate of number of prisoners per 100,000 population stood at about 143 points in January 2014, in the lower half of European countries. Spanish imprisonment rate is similar to that of Italy, Portugal, France and Germany (Ministry Of Home Affairs,2014). In February 2014, Spanish prisons had 66.706 inmates. 7.6% was female population. People between 41 and 60 represent the largest group in prisons making up 35% of the population. According to Ministry of Home Affairs (2014), the profile of the majority of Spanish prison population is represented by people who have little education and poor social skills. It makes difficult to connect them with new technologies. A significant percentage of these people are characterized as being functionally illiterate and another sizeable group has not had or has not completed primary studies. There is also a high number of foreign prisoners who do not know our language or do not understand it correctly (Ministry of Home Affairs, 2014). This situation complicates the achievement of an employment, because the relation between work and education is high (Barreiro-Gen, Novo-Corti, & Ramil-Díaz, 2013).

In fact, the most of the prison population does not have income or they have it because they are working in prison. The main obstacle they have to face when leaving prison is how to achieve a lawful source of income that allows them to support themselves (Barreiro-Gen, 2012).

3.2. Physical and virtual barriers

According to the literature, the digital divide is caused by social factors such as age, gender, education, status, income and local infrastructure (Clayton & Macdonald, 2013; Hindman, 2000; Kingsley & Anderson, 1998). Therefore, not only the different types of individuals, but also the different groups could be digitally isolated without necessarily belonging to groups traditionally excluded, at least not from a social conception of exclusion; in fact, there may actually be digitally excluded people of all kinds, for any of the reasons listed above. If in addition, the risk of social exclusion is present, as is the case of the inmate population, the situation becomes complicated. While it is true that so far, most of the activities that can be performed through the Internet, can be carried out also for offline, but such action will require investing more time. The Internet allows to reduce costs and improve services (Warren, 2007), which creates differences or "charges" for those individuals who do not have access to the network or do not have the right skills (Novo-Corti & Barreiro-Gen, 2014b).

Digital exclusion acts, usually in the same areas as social exclusion, namely: economic, cultural, social and personal (Helsper, 2012) and contained in these fields different forms of compromise with the Internet. Activities such as shopping online, making friends on social networks, e-learning and collaborative learning are examples of activities that inmates are excluded from.

However, people who are in prison, are deprived of engaging in any of such activities (any of the above mentioned activities) because access to ICTs in the penitentiary centers is prohibited. Thus, people that are in social exclusion, see their segregation is compounded by falling into the digital divide (Fig. 1) and, as a consequence, the digital exclusion. In addition, the digital divide also affects the social exclusion through a number of other mediating factors. These factors are mainly the usefulness, ease of use, ownership and sustainability. Unable to interact with new technologies, these indicators are detrimental to social exclusion, working in this way a vicious circle that must be broken.

On the other hand, different studies showed the relevance of socio-economic and demographic variables when analyses of new technologies development are done. Employment status (Strine et al., 2010), income (Venkatesh, Sykes, & Venkatraman, 2014; Warf, 2013), rurality (Novo-Corti, Varela-Candamio, & Garcia-Alvarez, 2014), gender (Caridad Sebastián & Ayuso García, 2011), age, educational level (Varela-Candamio, Novo-Corti, & Barreiro-Gen, 2014) or attitudes (Novo-Corti & Barreiro-Gen, 2014a) often appeared in the analysis to be associated with the use and development of new technologies.

The researches which relate ICT and inmates are majority focused on distance education (Farley, Murphy, & Bedford, 2012; Pike, 2009). There is a lack of research on policies that could bridge the gap of digital divide. McKay and Morris (2009) explained a case of New Jersey women's prison system, where was been developed a computer-based learning program, providing access to computers through computer labs, use of computers in coursework and computer ownership upon release into the community. These kind of programs helps to develop useful skills for getting a job and for reducing recidivism (Novo-Corti & Barreiro-Gen, 2014b).

4. Methods

4.1. Participants

Inmates from not only all of Galician prisons (Teixeiro, in A Coruña, Bonxe and Monterroso, in Lugo, Pereiro de Aguiar, in Ourense and A Lama, in Pontevedra), but also Social Integration Centers (CIS), with semi-freedom regime (A Coruña and Vigo, depending of A Lama prison) have been the population of this research.

In 2011, 3701 people were in Galician prisons. Therefore, our sample, with 380 inmates, comprises 10.27% of the total, and has a structure similar to the population to what we reference. Table 2