Abstract

Currently the Information and Communication Technologies (ICT) play an essential role. We might even say that they have become indispensable, for both economic and social development of citizens, as also of regions, nations... This requirement represents a serious risk of marginalization for people who do not have access to these technologies and a decrease in their opportunities of social participation.

We are living in the information society and this implies also changes in social interaction, teaching, learning... Therefore, one of the key elements in guaranteeing equal opportunities is the access to information and, for that, it is also necessary to have personal tools and resources.

Spain is already involved in the introduction of technology into schools, by adoption of the policy “one computer per child” (School 2.0 program) and the “Institutes of Technological innovation”. But it is necessary to know the initial and final digital competence of students participating in these innovation projects. We are developing a project which aims to explore how using technology in the classroom can improve:

a) their skills when using the Internet,

b) the increase of knowledge based on the information quality,

c) the production of online content using Web 2.0, and

d) their social participation.

This paper shows our point of view about the schools can not simply perform functional literacy training in the use of ICT but it is necessary to train new generations to be able to lead self-directed lives and generate processes of empowerment, awareness and civic engagement on the basis of these technologies to get a real impact on the society and the people's life.

Keywords: citizen participation, functional literacy, Web 2.0 technologies, technologies uses in education.

1 THE INFORMATION/COMMUNICATION AS A RIGHT

We can not forget that we live in the information society. This means changes in the way of relationship, production, teaching, learning... that is why one of the key elements to ensure equality of opportunity is to guaranty the access to information, and the necessary tools and resources. At present the use of computer, mobile phone, internet access... is new for part of the population, but it is everyday technology, especially for young people. Also in recent times we are living the speed with which changes happen both in the technologies and of their uses.

At present, ICT are fundamental, we might say that they have become indispensable for both economic and social development, but also of regions, nations... This condition contains a serious risk of marginalization for those without access to these technologies. The opportunities and potential that ICT provide are endless but “despite creating opportunities for improved quality of life, this social model and its hegemony is causing a relative worsening of old inequalities and creates new ones” (Flecha, 1994, p.58) [1] since we must not forget that the spread of ICT is a requirement of the own social model that is promoting them. As noted by Alejandro González Martínez (2004) [2] the extension of ICT in our social context and the economy is palpable and is visibly playing a key role, but this is happening in contrast with the difficulties that a part of the population have to access to them.

We see how international organizations recognize the potential of ICT in the fight against poverty since, in the Millennium Declaration (2000) [3] members of the United Nations undertakes to “ensure everyone access to the benefits of new technologies, especially information and communication
technologies” in order to eradicate poverty and promote development. This reinforces the above interest to extend the current social model.

On this issue we must not forget at least two issues. Firstly, although they are designed as a tool to promote the established model, at the same time they have been reviewed by the anti-establishment movements. We have in the memory recent movements in the Arab Spring, or the 15-M, where ‘the Internet, instant messaging, social networks are playing a crucial role in the emergence and the maintenance of these movements. But also in the nineties we had examples of this as the EZLN Zapatista movement in Mexico. Gonzalo April (1997) [4] points out that what is seen for some as a threat, the loss of institutional control over the flow of communication, for others it means a hope of developing new forms of democratization of society, more participatory than the current representative democracy, where the role of citizenship is being reduced to the exercise of voting rights.

Moreover, it is important to realize that the ICT which are available to us are those which are suitable for social and economic model that is hegemonic and therefore, if the interest would be different so the ICT would be. Mainly which use of them would be enhanced. Since the Educational intervention leads us to discuss the inequalities produced by the system and how to address them. Being the access to information essential, and especially the access to communication systems.

2 ACCESS AND USE OF TECHNOLOGY BY YOUTH

The technological and scientific development in which we are immersed affects individuals (and societies) but not for all in the same way. As pointed out by Manuel Area (2009) [5], access to information technologies and knowledge are not available to everyone, but only for those who can afford the materials and have the skills to use them. This causes an increase in social inequalities that is known as “digital divide”. We speak about the first digital divide when it refers to economic difficulties for access, geographic, social... But there is even a second digital divide that not only refers to difficulties of access to technology, but to individually capacities for critical and creative use of it or in other words, the digital competences.

Teens and young adults today are the first generation that has grown into that a culture of ICT use. Even if differences are smaller than the previous generation, we see that they still exist. Both in accessing and in using it. According to a survey about “equipment and use of information and communication technologies in households” (INE, 2011) the population between 10 and 15 years uses habitually ICT. The computer is used by 95.6% of this population, the percentage using the Internet is 87.1%, which implies that there is widespread use. In Addition, there are not significant differences by gender. On the other hand, this survey shows differences in the access mobile phone, which is higher among girls. We can see in the following table the evolution of the use by age and gender of the teenagers.

<table>
<thead>
<tr>
<th>Age</th>
<th>Using computer</th>
<th>Use of Internet</th>
<th>Provision of mobile</th>
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<tbody>
<tr>
<td>10</td>
<td>90,1</td>
<td>79,8</td>
<td>32,5</td>
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<td>11</td>
<td>95,4</td>
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<td>15</td>
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Source: INE, Survey on Equipment and Using Information and Communication Technologies in Households. 2011
We complete these data with those provided by the study of the Institute for Youth (INJUVE) [6] in 2008 on youth in Spain, where it is stated that 96% of young people between 15 and 29 have access to a mobile phone for personal use. This indicates its importance, in particular, if comparing to other technological devices. Also it stands out as a characteristic of youth the increased customization of technological devices, especially the mobile phone. Specifically, the mobile phone allows them to be ‘available and connected’ permanently. In addition, since the study’s date the internet access has been extended to the mobile devices, increasing their connection to the world.

The study devotes substantial space to the study of those young people who stay online several hours per day. It is possible to see how their relationship with the technologies is affecting their lives daily. About the Internet use by children under 18 years shows that almost 80% of STI connections are personal. The boys make more of this personal use than girls (71% and 83%). Girls use it more for academics and work (ten points more women percentage than men in all young age groups).

Young people with university studies, 28.17% use the network for training, and as noted previously, with a greater percentage of women than men (33% women, 25% men). Also it seems that most people who use the Internet to acquire training is working and use the network resources for professional update and promotion. On the other hand, those without studies do not use it as a resource for training and promotion, nor the unemployed people use it for seeking work. That is, is more common among qualified employed population than for unemployed and students. This is one of the gaps in the use of the technologies that we have to deal with since childhood.

Mentioned in previous paragraphs as mobile phone use has become a hallmark of youth as the 82.5% claim to have the phone constantly connected with a gender gap of four points for women (80.3% men and 84.8% women. And this (“to be permanently connected to the people”) is for young people the highest valued (INJUVE, 2008: 204) [6]. Also promotes the enhancement of standards of social obligation, establishing a sort of implicit permanently commitment to be available. About the use of the mobile phone among young underlines the centrality of the affective dimension, facilitating and enhancing the strength of social ties.

Regarding the participation in social networks, 52.3% of Internet users participate in networks as Facebook or Twitter, by creating a user profile or sending messages or other contributions. Most of those involved in social networks are the students (90.2%) and youth aged 16 to 24 years (88.5%). By gender, women more than men participate (54.8% vs. 49.9%).

Other use of the Internet that some young people are doing is as Fernández Buey (2007) [7] called it the “Movement of Movements”, by the heterogeneity of ITS components and the plurality of its causes (environment, social democracy, the right to transport, domestic violence...). According to him, the traits that identify and bind to their users are: prioritize social before political issues, criticize representative democracy proposing participatory democracy methods, denounce growing authoritarianism in neoliberal practices, and use the Internet to consolidate a network of alternative information, dialogue, and mobilization. He also highlights historical desire to create a civil society on a planetary scale to overcome the fragmentation and atomization of traditional political actors, and essentially territorial barriers. In addition to this, those who are more pro-democracy are the people who most challenge its actual operational work. They have little interest in conventional politics

While most of adolescents and young people have access to ICTs now, especially mobile telephony and the Internet, it is very important that we make a distinction between mere consumers of messaging, games, music downloads and videos... and those who have acquired the needed skills to operate competently in a society based on information and knowledge, being able to use these technologies to learn and participate in the society.

3 EDUCATIONAL PRACTICES AND DIGITAL COMPETENCE

Spain is, at this moment, introducing technology in schools, through policies based in “one computer per child” (School 2.0, Institute for Technological Innovation, Educat 1x1, Eskola 2.0...). However is necessary to know which is digital input and output skills of students participating in these innovation projects and to what extent the use of technology in the classroom improves their skills in using the Internet, in increasing knowledge about the quality of information, in the online content production in the times of Web 2.0 and social participation. These programs are primarily aimed to the provision of connectivity technologies and classrooms and teachers’ training in methodological and technological aspects, in order to get them to use routinely the information technology and communication in the training of students.
Before this implementation of technology in classrooms and teacher training programs the process began with the incorporation of digital competence in the curricula at different educational levels. At the European level, digital competence has been recognized as one of the basic skills for lifelong learning. Furthermore the European Union has defined, in its 2006 recommendation on key competences, such as the safe, critical and creative use of ICT to achieve objectives related to work, employability, learning, leisure, inclusion and / or participation in society. At the end of compulsory education, young people acquired skills should prepare them for adult life, especially for professional life, and become the ground to further learning.

In the Spanish educational system, digital competence has been included at all levels of education, but here we focus on the Royal Decree 1513/2006 [8] of 7 December, which establishes the Curriculum for primary education in the Royal Decree 1631/2006 [9] of 29 December, which establishes the core curricula for secondary education and orders ECI/221/2007 [10] orders of 12 July and ECI/2220/2007 [11] establishes and regulates the curricula of the primary and secondary education since they refer to young people at the educational levels we focus on.

In both decrees digital competence is defined as follows: “This competence means to have the skills to seek, obtain, process and communicate information and be able to transforming it into knowledge. It incorporates different skills, ranging from access to information, editing and transmission. Including the use of information technology and communication as essential to get information, learn and communicate”.

But as stated by Sefton-Green et al. (2009) [12] there is a gap between the conception of digital literacy in schools and non-formal digital practices. This statement is confirmed by data obtained from a first preliminary results from a report about the visions that teachers have on the Implementation of School 2.0, in a study coordinated by Manuel Area, called the “Politics of a Computer for Children in Spain. Visions and practices of teachers at the School 2.0. A comparative analysis Between regions”. This study shows that if we focus on the use of technology by teachers in the classroom, there are four activities that are performed: searching the Internet, use word processor to produce work, exercise and explain online content using the whiteboard. By contrast, the activities which are seldom performed are in the following order: multimedia presentations, online resources development, publish essays online and participate in web projects with other schools or colleges.

The other aspect is the effect that teachers believe the learning ICT has on students. The results show that teachers believe the use of technology improved student motivation in carrying out assignments, digital competence and information seeking strategies. Considering also that they have not had a positive impact in terms of expression and communication.

But as we saw young people stress the importance of being constantly connected and use both mobile and social networks to achieve it. Therefore, Educational Institutions, as suggested by Lankshear and Knobel (2008) [13] should include the popular culture practices (communication in social networks, blogs...) that would provide students a competitive approach which incorporates digital basics of being literate, competent and able to learn more in digital environments in everyday life for students and educators.

The school cannot simply perform a functional literacy in the use of ICT but it is necessary to train new generations to be able to generate processes of empowerment, awareness and mobilization on the basis of these technologies so that have a real reach impact on society and the lives of people. Both from the professional practice of teachers as from the fields of non-formal education should make an effort to promote digital literacy and skills development which allow young people to actively participate in society. Especially now that a large majority of young people use ICT as a form of communication, expression, etc... outside of the educational institutions. This requires reconciling the views of teachers and students in ICT, so the social potential and everyday use of these technologies are transferred is to the educational context and become part of the academic world. As Sefton-Green state “we note different conceptions of digital literacy among teachers and students... this illustrates the institutional barriers also that are frequently raised when to bringing digital literacy from the policy level down to the school level, and when to use to trying to conception of mandated change to digital literacy educational practice” (Sefton-Green et al., 2009, p. 117) [12].

A new term has been introduced in order to overcoming the use made of ICT in classrooms to make it reach TAC (Learning and Knowledge Technologies). But it still seems that the educational use of ICT are driven on parallel roads than the use which young people practice in their social environment outside education. The implementation of technology in education should be such that would allow us to speak of which Dolors Reig called Technologies for Empowerment and Engagement (TOE),
overcoming the “cognitive dissonance between what the Internet and offline actually gives us as many respects, but especially in terms of empowerment and participation opportunities in the new 'social networks’” (2012, p. 9) [14].

4 USE OF ICT AMONG EDUCATION PROFESSIONAL

The youth closer contact to ICT is a mean to promote learning, values of equality, respect, solidarity, knowledge of the cultures with which we share territory... and youth participation, ie, their formation as Citizens. But first, professional educators must be trained to take advantage of them because, at present, new training has become a requirement. It is necessary to acquire knowledge to assess the use and different possibilities to improve these technologies offer to our professional actions. It is therefore important that this training be present during the overall process of education, from educational institutions promoting the opportunity to learn more getting familiar with the use STI, allowing their research on applications. But obviously, we live in times of constant change, the need for training could not be limited to the initial training but we must consider that it extends over a lifetime and in all facets as citizens (work, leisure...).

At present ICT is a tool we have to approach the general youth population, and in particular the one at risk of exclusion, and to use these technologies to expand the uses they made towards full participation in society. We must try to enhance those applications that provide greater social returns, such as facilitating access to education and improving student learning, which encourage participation and communication, which expand the possibilities of access to information and reinforcing the cooperative work (Prats, 2001) [15], that support the development and dissemination of social calls and initiatives which contribute to social inclusion (Martínez González, 2004).

We must be aware that the role of education professionals at the moment is not only to teach about static knowledge to those who have internet access, libraries, etc... but to provide young people with educational experiences that help them “learning to learn”. Education throughout life, as indicated above, it is imperative at this time so that young people must have skills to access knowledge independently and selection criteria, and those that help them in their cognitive, physical, emotional and social.

Another issue that forces us to use ICT is the diversity of young people in educational programs, and the diversity of educational situations that we can find. The use of multiple resources which we have at our disposal allows us to adapt our educational needs of young people, not to mention that besides the technical knowledge we must have a solid educational and innovative teaching and learning methodologies. Here we describe how training in ICT and its application by education professionals can play an important role in various educational aspects for both the individual and for society in general.

4.1 Enhance learning

The ratio of computers per child aimed to teaching and learning is narrowing, according to the National Statistics Institute (INE), during 2002/03 there was a computer for every 11.2 students in secondary education, in the year 2006/7 the number of students per computer was reduced to 5.1 and the centers with an Internet connection has been reached to 99.3%, but as Means says “It is clear that the mere provision of hardware, cables and software will not make our students more intelligent and productive. (...) We should not expect to find impact of the presence per se of technology just as we do with the presence of the slates or books. What it is much more likely to influence on students and teachers is a type of supported educational innovation in technology. It is the educational practice, which includes individuals, content, tools and activities, which affect student learning” (quoted in Area, 2005, p. 6).

The educational community must take advantage of the possibilities that ICT offers to enhance the learning of our students, teach them to learn to learn, using innovative technology practices. We have a wide range of tools and capabilities that contribute significantly to improving the quality of the classical processes of teaching / learning. An important task of education professionals will be raise awareness of the possibilities offered by ICT to young people they work with, but also a task of supporting and monitoring the process, mainly in the initial moments, as many young people do not have the appropriate skills to enable them to use the technology to improve their current and future learning.
Currently the online training creates learning environments / virtual and interactive learning guide and accompany the students in their study on an individual basis through permanent tutoring via e-mail, that structure and arrange the content to ensure appropriate follow-up and let you interact with fellow students sharing documents, other information... or participating in blogs, forums, wikis... These learning environments are useful both in formal education settings in non-formal education.

As noted in the first section, access to information is a right and is essential for the promotion of equal opportunities, so we must use all technologies at our disposal to disseminate the information available to us to help youth to improve their training, creating virtual spaces which facilitate exchange of information, create forums where they can share and feel accompanied in their processes, but also to participate in the community within they are members, either individually as well as collectively.

It is not only important to create communities of exchange in training, but employment is also essential. We should remember the data showed as the most educated and employed are those who make greater use of these technologies. Thus the issue of employment must be present in the formation of our youth. In this respect, as professionals, we must know and make known the different resources of the community to enhance relationship between training and employment through the use of ICT.

Furthermore from educational institutions or entities within we work we can create web sites to provide training and information to young people through specific documents, newsletters, links, etc.. We must not forget that one of the risk of Internet is getting lost in the abundance of information. For this we must provide young people with tools to be able to differentiate what is reliable and useful information from what is not.

Once we have gone from conception ICT to conception TAC, where what matters is not the technologies but how people can use them for continuous learning and access to knowledge, technologies need to be removed out of the classroom and formal environments and make visible the competences and digital uses which are learned outside the classroom (Cobo and Moravec, 2011). If the school cannot compete with the volume of information offered by different media and their role is to help young people to select and make sense of this information (Sancho, 2011), we should take steps to allow the entry of informal learning practices in the academic field. Only then we will be contributing to building a socially situated digital competition, which allows people to function and learn in their different life situations and put the technology in support of the people. In that way people will be able to generate new uses of these technologies serving them as citizens, more related to the PET conception that we mentioned earlier.

4.2 Promotion of collaborative work

Collaborative work is both a result and a strategy in the above mentioned aspects: teaching-learning process, promoting participation and communication, dissemination of information... and all this can be done through ICT. The collaborative work is essential to break the traditional pattern of teaching and learning that should already have passed and propose working methods based on peer interaction to promote the active construction of knowledge, dialogue, the ability to see and accept different points of view, etc.. Today it is essential to address the diversity of young people we work with, especially if we understand diversity as a principle and not as a exception of our practice.

In addition, collaborative work, outside the scope of formal education is very important in social intervention for the creation of support networks is critical. Not only is it important for the target group but also for the educators.

Both everything said about collaborative work and what said in this section regarding the benefits of ICT use in education with the youth population is able to adapt to the work of education professionals and collectively. That is, professionals also can and should use the possibilities offered by ICTs for us to form, inform, stay connected with other professionals, to spread the activities we do, investigate social realities in which we play our profession... In short, to create opportunities to improve our educational intervention.

4.3 Promotion of participation and communication

Finally, in order to promote young people's interest to participate and be participants in the construction of citizenship. The cornerstone of this is to strengthen participatory democratic practices, not just representative. As education professionals have obligation to provide our young people training to enable them to know what their rights and duties and what are the mechanisms for active participation...
With this objective, the creation and use of media is a growing possibility available to the professionals. For example, we noted that young people do not leave away their mobile phones, therefore, the dissemination of information via sms is a way to ensure that the information will reach them, but also is widespread use of social networks that can be useful for this purpose, the creation of newsletters that are available on the website of our organization, the layout of posters with information on specific activities for dissemination through the neighborhood... there are infinite possibilities that ICT offers.

Besides these publications, if carried out together with youth groups can serve other purposes (Martínez González, 2004: 247):

- Enhance skills and training in teamwork.
- Create and develop relationships that promote respect and tolerance.
- To encourage interaction with the social and natural environment, offering the possibility of developing interest in the problems that arise in it, and participate in the development of possible solutions.
- Develop social skills through the exercise of expression, discussion, reflection and interaction.
- To promote freedom of expression, the construction of identity and recognition of this within a collective identity.
- Encourage the acquisition and development of critical thinking, sense of responsibility, autonomy and creativity, aesthetic sense and the ability to obtain, select and organize information.
- Promote training and improving the understanding and speaking, written and graphic.
- Discover the importance of using different sources of information and knowledge to supplement knowledge.
- Strengthening the social roots and the development of participatory skills that promote involvement in improving the contexts to which they belong.

If we promote these objectives, achieving a better training of people and developing in them the capacity for collective participation and mobilization, the use of ICT can become a new avenue for the exercise of citizenship.

5 CONCLUSIONS

We have seen how it is changing the implementation and uses of information technology. The changes are so rapid that we cannot call them new technologies. But also affect our lives so that influence our conception of the world and ourselves. Knowledge about how to configure this new reality and the actual use of ICT, will enable education professionals more adequately meet the demands of this reality. But this is not only necessary to move from ICT to the TAC, but get to use these technologies as a source of empowerment, participation... citizenship and civic engagement in short (TEP).

On the one hand we have described the use that young men and women make of them. Also, if the first digital divide (the access) and the gender gap appear to be declining in our environment, we must now consider a second digital divide which lies in the use we are able to make these technologies. We watched as young people who are more educated and those who have jobs use the Internet more for training and employment, so social integration programs should address this deficit, towards a more equitable society that favors equality among its members. As a society we must at least ensure basic education of our citizens and our citizens and use all means at our disposal to try to ensure the right to employment, because that is fundamental to subsist a coexistence based on peace and justice social and, especially, in the dignity of people.

It is true that, as professionals, we cannot have knowledge of all the technological advances that occur, but we do have an obligation to know how those most used by the population we work with, in this case young people to reach them and they, as well as those to promote social integration. Only in this way we can integrate ICT in our educational practice so that it relate to the social practices of young people, promoting digital competence that allows them to make critical use of ICT in their lives. Knowledge of the uses and possibilities of ICT in our social context is no longer an option but it has become a new professional requirement.
Education must help citizens to develop and ICT can become an instrument in the service of citizenship. To do this, and as noted, the school can not restrict itself to functional literacy in the use of ICT. We need to know what skills and uses of technology youth implement outside the educational system to make sure we are going away from being mere consumers of technology to training critical, creative and participatory citizens, able to using technology as a means to a humanizing social model (Nussbaum, 2006) and satisfactory to all.

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