# Digital Literacy and Education

## Report by Country

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<th>Author(s)</th>
<th>Country</th>
<th>Spain</th>
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</table>
| **Name:** Catarina Lucas  
**Institution:** Autonomous University of Barcelona, Spain  
**Position:** Independent Researcher  
**E-mail:** catarinalucas.mail@gmail.com | | |
| **Name:** Maria João Couto  
**Institution:** University of Vigo, Spain  
**Position:** Researcher  
**E-mail:** mjoaocouto@uvigo.es | | |
| **Name:** Manuel Perea  
**Institution:** University of Valencia, Spain  
**Position:** Professor  
**E-mail:** manuel.perea@uv.es | | |
1. DIGITAL LITERACY - BACKGROUND

a. Can you identify the main concepts around Digital Literacy (DL)?

**Media Competence** - the skill to consult, to understand, to critically appraise and to create content in the media (European Parliament, 2007). The capacity to analyze audiovisual messages and to express them in a communicative environment: as messages receivers, analyzing them and producing new messages (Ferrés, 2007). Prats, Aguaded-Gómez, and García-Matilla (2012) indicated the following dimensions in media competence: language, ideology and values, the processes of production and dissemination, reception processes and interaction, and aesthetic dimension.

**Digital Competency** and **Information Processing** - “which is regulated in the two Royal Decrees as follows: this competence consists of having the skills to search, to find, to process and to communicate information, and to transform it into knowledge. It incorporates various skills, ranging from basic access to information up to its communication in various formats once processed, including the use of Information and Communication Technologies (ICT) as an essential element to be informed, learnt and communicated” (Grandío, Vicente, García, Gutiérrez, & Marta, 2014, p. 4).

**Alfabetización mediática** [media literacy] - the ability to access, to analyze, to evaluate and to create media in a variety of ways. Its purpose is to help people, as consumers of the media offer, to have the criteria and arguments to make better decisions. Aguaded and Martínez (2015) refered “The skills related to the reception and production of a multimodal discourse. This includes verbal language, audiovisual languages and the use of digital devices for composing and receiving messages.” (Aguaded & Martínez, 2015: 170).

**Digital Literacy** - competence to use information and communication technologies. In Spanish language, it is usual to describe digital literacy by specific terms such as: “alfabetismo digital”, “alfabetización digital” or “alfabetización multimedia”. It represents the capacity to locate, to organize, to understand, to evaluate and to analyze information using digital technology. It implies the knowledge of how today’s high-tech works and, also, the understanding of how it can be used. Digitally literate people can communicate and work more efficiently. The research on digital literacy focuses on broader learning aspects of how to effectively find, use, summarize, evaluate, create and transmit information using digital technologies and not only the ability to use a computer. Digital literacy includes knowledge of the hardware of computers, of the software (particularly the most frequently used in business), of the Internet, of cell phones and other digital devices. A person who uses these skills to interact with society can be called a *ciudadano digital* [digital citizen].
**Digital Reading Literacy** consists on the comprehension, use, reflection and enjoyment of written texts with the aim to fulfill our goals, to develop our knowledge and potential, and to participate in our society (Fajardo, Villalta, & Salmerón, 2015).

**Ciudadanía digital, ciberciudadanía o e-ciudadanía** [Digital Citizenship] defined as the norms of behavior that concern the use of technology, although the concept itself is considered in permanent redefinition with the technological evolution. The difference between Digital Literacy and Digital Citizenship consists on the inclusion of ethics and social issues in the second definition. A Digital Citizen has the right to access to the Information and Communication Technologies, to the development of digital skills, to online information in a secure, transparent and private way. According to different definitions, there are several areas that are usually encompassed and related within the concept of Digital Citizenship, such as:
- Education: learning the use of the ICT (literacy and digital skills) and through the use of ICT;
- Access and participation: *brecha digital* [digital divide], right of access to the Internet, electronic democracy.

A growing trend of special relevance is the linking of education for a responsible ciberciudadanía [cyber-citizenship] with the prevention of the ICT risks, especially for minors. For example, the cyberbullying phenomenon is considered as one of the main risks that children and adolescents face as Internet users and other technologies.

Another trend, which we can link to the concept of electronic democracy is more related with building tools from below to make democracy effective. It promotes the direct participation, the organization of the people to make effective their civil rights, the control of the governors, the communication of our desires and needs to those who decide and the transparency of the government's management. *Digital citizenship* involves the understanding of human, cultural and social issues related to the use of ICT, as well as the application of relevant behaviors to its understanding and to the principles that guide it: ethics, legality, security and responsibility in the use of the Internet, of the social networks and other available technologies.

**b. Historical perspective**

Carabaña (2013) states that "the concept of literacy was expanded so that, in addition to its strict sense (knowing read and write), it included the use of information in daily life (functional literacy)". Thus, all studies conducted since the 1980s are based on the definition of the Young Aduly Literacy Survey carried out in the United States in 1986 "Using printed and written information to function in society, to achieve its own ends and to develop knowledge and potential." (Kirsch & Jungeblut, 1986, p. 36).

As the presenters of the National Adult Literacy Survey of 1993 emphasize, this definition "unlike traditional definitions of literacy, which focused on decoding and comprehension,
this definition encompasses a broad range of skills that adults use in accomplishing the many different types of literacy tasks associated with work, home and community contexts." (Lynn, 1993: 28). The OECD has pointed out, for example in the successive Programme for International Student Assessment reports (PISA):

“The concept of reading literacy used in PISA is much broader than the historical notion of the ability to read. It is measured on a continuum, not as something that an individual either has or does not have. While it may be necessary or desirable to define a point on a literacy continuum below which levels of competence are considered inadequate, PISA charts continuous gradations of performance above and below such a threshold. The acquisition of literacy is a lifelong process that takes place not just at school or through formal learning, but also through interactions with family, peers, colleagues and wider communities” (OECD, 2010, p. 22).

“Innovative concept of "literacy", which refers both to students’ capacity to apply knowledge and skills in key subject areas and to their ability to analyse, reason and communicate effectively as they pose, interpret and solve problems in a variety of situations (2010, p. 276)

Aguaded, Marin-Gutierrez and Diaz-Parejo (2015) refered that media literacy is taking the same importance as strict literacy in the early stages of school life. According to this constatation, they have considered that the teaching learning processes should not be focused in knowing how to read and write but also on the acquirement and development of media skills, because teachers should prepare students to live in a digital world surrounded by screens. Valero and Martínez (2015) have also suggested an educational use of these resources to demonstrate that “reading tendencies are changing and people have to adapt to these processes and to the new demands from digital culture.” (Valero & Martínez, 2015: 166).

c. Concepts mapping: cross dimensions in regards to DL

Several publications stemming from scientific studies deal with topics related to digital literacy: media literacy (Aguaded, 2015; Kung, 2016); digital reading; digital natives; computational literacy (Jenson & Droumeva, 2016); information literacy (Martinez-Abad, Olmos-Miguelanez, & Rodriguez-Conde, 2015).
In ConoCity, from Bilbao, Spain, Josi Sierra innovates with enriched videos to explain complex and abstract topics combining all expressive media to make the message comprehensible. The effort uses concept maps and CmapTools to organize the content. For example, the Cmap in Figure 1, a summary of FIET 2014, is a collective work to define the role of technology by more than 200 professionals from around the world. In Tarragon, Spain, organized by the Universitat Rovira i Virgili and coordinated by the Arget research group of Mercè Gisbert Cervera, Mar Camacho and other faculty and researchers. They presented to the education community their conclusions, grouped in 11 items and
interlinked in an original scheme that the concept map tries to represent. The links are to the video interviews that summarize the work of these professionals (more information at ConoCity).

**Figure 1** – Concept mapping of a collective work to define the role of technology ([http://cmap.ihmc.us/conocity/](http://cmap.ihmc.us/conocity/)).

According to Sierra (2010), it is possible to establish the bases of the "new" literacy in knowing how to read, to write and to publish on the Internet. This idea is expressed in the map of Figure 2.

**Figure 2.** The 3 basic ICT applications for a literate person: read, write and publish (Sierra, 2010).
Vivancos (2008) also presented a concept mapping which shows the evolution of the relationship between ICT and the educational curriculum (Figure 3).

![Figure 3. The evolution of the relationship between ICT and the educational curriculum according to Jordi Vivancos (2008). Source Sierra (2010)](image)

In the educational field, when the development of skills becomes the center of pedagogical planning and programming, it is possible to say that literacy involves the development of the *competencia digital* [Digital Competence] that Tíscar Lara (2009) states as: "to get communicative skills for being an autonomous, effective, responsible, critical and reflective person." This concept is summarized in the map of Figure 4.
This competence, according to Adell, in Sierra (2010), is a set of literacies, covering at least 5 dimensions: information literacy, technological literacy, multiple literacy, cognitive competence and digital citizenship.

According to Sierra (2010), Tíscar Lara has drawn an effective scheme of the new relationships to be established between student-trainees and teachers, stating that "the teacher model goes from being a source or a filter of knowledge to being a facilitator of learning, a tutor of the process." This scheme can be seen in Figure 5.

In Figure 6, Tíscar Lara summarizes the conception of Media Literacy, coinciding with the educational purposes of UNESCO, which set out of 3 of the “Pillars of Learning”: learning to know, learning to do and learning to be. In a future work, it could be suggested the inclusion of the pillar “Learning to live together” in the next conceptual maps.
According to Sierra (2010), Manuel Area Moreira made an integrating proposal called Multi-Literacy, collecting the 4 key dimensions of multiple, global and integrated learning (Figure 7): the instrumental (the technical domain, the knowledge to handle the hardware and the software); the cognitive (to acquire specific knowledge and skills for an intelligent use); the attitudinal (developing positive attitudes and social norms as being collaborative, respectful and empathetic with other people); the axiological (becoming aware that ICTs are neither aseptic nor neutral, having values and ethical criteria for use, avoiding negative behaviors of communication in social terms).
d. Cross geographies: how the policy in your country is cross-referenced to other EU countries?

In this sense, the European Parliament (2007) defined media literacy as "the ability to consult, understand, appreciate critically and create content in the media" and in 2008 recommended the inclusion of a discipline related with media literacy in the European schools.

In 2009, the European Commission, for its part, issued a recommendation for media literacy in the digital environment, where it states that "media literacy consists of including all and enhancing citizenship in today’s information society" and insisted on the need to know criteria for assessing the levels of media literacy in Europe. Its aim is to increase citizens’ awareness of the many forms of media messages which they can find in their daily lives. For this achievement, it intends to "encourage systematic research through studies and projects on the different aspects and dimensions of media literacy in the digital environment and monitoring and measure the progress of its levels", and to encompass all media around the developing of media literacy in different European countries. (Commission of the European Communities, 2009, p.5).

Spain, as a member of the European Union, has drawn up similar plans, or in line with those proposed by the European Commission for the development of the Information Society. As a token of this, four plans have been designed for the incorporation of ICTs into Spanish society: Plan Info XXI (version 1.0), Plan Info XXI (version 2.0), España.es and Ingenio 2010 (copying the name of the European action plan).

The policy for access to the information society, from the point of view of regulation, has not been overly defined. From the competential point of view, it has passed from the Ministry of Economy and Finance, to the creation of an own Ministry of Science and Technology, and to currently depend of the Ministry of Industry, Tourism and Trade, always giving it an economic and industrial perspective, and tangentially increasing the social aspect of ICT (Navarrete, 2006, p. 155).

e. Is there any legal policy framework?

“Spanish education policies take media and new technologies education into account, yet implementation in the classrooms has been insufficient. In most cases, media education is based on mere instrumental training in technological applications, without being the object of study.

As far as legislation on the education system is concerned, the Education Law 2/2006 included the concept of “basic competences” of the school curriculum which should lead to a more precise definition of the education and training students should receive (preamble LOE, 2006: 17162). Among the eight competences that have been set in the curriculum of primary education (Royal Decree 1513/2006, 7
December) and Secondary Education (Royal Decree 1631/2006, 29 December), one is the so-called Information processing and digital competency [...] At the higher education level (Royal Decree 1393/2007: 44046)” (Grandío et al., 2014, p. 4-5).

According to the Digital Agenda of the Government of Spain-Ministry of Industry, Energy and Tourism- the sixth objective is to achieve an inclusive Information Society in which citizens and professionals could have a high degree of readiness to obtain the advantages of an intensive use of ICT. To this end, the Agenda proposes two key areas of work: promoting the inclusion and the digital literacy and adapting the education systems for the capacitación digital [Digital Training] and for the education of new ICT professionals (Government of Spain, 2013).

An advanced digital society requires that the majority of its citizens could access to the Internet on a regular basis and, moreover, that this opportunity could be a benefit or advantage for them. For this purpose, the Digital Agenda for Spain have established the development of a Plan for Digital Inclusion and Employability through public-private collaboration and with the participation of civil society.

**Subobjectives and Lines of action**

1. **Digital literacy and inclusion.**
   - Elaboration of a Digital Inclusion Strategy 2013-2015 with the aim of incorporating on the Information Society the most disadvantaged population and collective sectors, and also the groups with low levels of internet usage.

2. **Digital Training and education of new ICT professionals.**
   - Update the National Catalog of Professional Qualifications in ICT skills and training. This will take into account the evolution, in the European context, of the ICT competency frameworks and the professional accreditation schemes.
   - Maximizing the efficiency in the management and allocation of Training Funds for continuing training in ICT of staff of both private and public sector. Particular attention will be paid to the usage of virtual platforms of online training.
   - Allocate part of the resources available for continuing training to the acquisition of digital skills of the ICT professionals.
   - Reorienting the Vocational Training related to ICT.
   - To promote an improvement of the university, offer aimed to the training of ICT professionals by adapting it to the needs of the market, taking into account the new professional profiles in the field of ICT and the increase of the system efficiency.

From the regulatory perspective, the attempts have been scattered and not very clear, neither favoring economic activity nor guaranteeing the privacy and security of the communications of the user or the final consumer. The Law on services of the information society and the electronic commerce has further slowed the development of the information society in Spain (Navarrete, 2006, p. 155).
In the educational or training fields some youth policies have been carried out aimed at introducing and improving the skills of young people in Spain, especially in educational centers and focused in didactic innovation; policies to provide computer equipment to schools and institutes, to improve the quality of research in Universities, as well as training workshops and numerous pilot actions for the pedagogical and didactic innovation of teaching in the different education levels. In other areas, European aids and projects have also been used to bring ICTs to the young people, through PAPI (Public Access Points to the Internet), etc. The results of these youth policies are seen in the indices of acquisition, connection, and availability of broadband in these centers, as well as in the number of access points to information in many cultural centers, libraries, etc. So, Navarrete (2006) concluded that an effort has been made, although there is still a way to go, placing Spain in the middle of the table of the Europe of fifteen in these matters. However, in other aspects, as in improving political participation, through or taking advantage of ICT, Navarrete has considered it very difficult to find some remarkable experience. Also concluded that, both internationally and in the European context, as well as in the Spanish context, the initiatives implemented in relation to the promotion of a Knowledge Society for all, and especially for young people, do not correspond in number, in quality and in political will, with the declarations of intentions and wishes that the different organisms raise in their speeches and action programs (Ibid.).

f. Curricula: which levels of education are included or covered by the digital literacy policy?

"Current Spanish school curricula integrate information and digital skills at all levels. Even it takes into account the views of the European regulatory framework; the role of media literacy promotion is still limited to the achievement of the general objectives for each educational level. Consequently, Spanish school curricula do not contain specific courses focused on this topic of growing importance and the implementation of media literacy has largely depended on the capacity and willingness of individual teachers. In fact, it has often been the case that the pressure to complete the mandatory school curricula discourages many teachers from devoting class time to media literacy content.” (Grandío et al., 2014, p. 3).

In relation to the curriculum for primary education (students 6-12 years old), the law establishes that it is the school system’s responsibility to promote, among other things, early initiation experiences in ICT. This requires, as the law establishes:

- An initiation in the use of technological tools like computers, cameras or audio and video players, working as communication elements.
- Approaching audio-visual productions such as movies, cartoons and video games, with a critical attitude towards its contents and its aesthetics.
- A progressive distinction between reality and visual representation.
- Taking gradual awareness of the need to moderate use of audiovisual media and ICT.
Regarding secondary education (students 12-18 years old), the law stipulates that school curricula should include the promotion of basic skills in the use of sources of information. It notes, however, that media competences should be included in all subjects and courses.

At the higher education level (students since 18 years old), the law agrees that education will ensure, among other basic skills, that students should have the ability to gather and interpret relevant data to make judgments that include reflection on relevant social, scientific or ethical and convey information, ideas, problems and solutions to both specialists and non-specialists (Grandío et al., 2014, p. 4-5).

“One can claim that relevant legislation on the Spanish education system does cover the acquisition of digital competences. However, the current framework does not regard as mandatory the implementation of courses on media literacy, as it has been recommended by the European Parliament. As explained above, the current educational framework in Spain regards media education as a subsidiary, transversal subject that plays a supporting role in the achievement of the core contents of the school curriculum.” (Grandío et al., 2014, p. 5).

Within the teachers training field, a clear distinction between the set of preparations offered to future teachers at higher education institutions and the lifelong education of those professionals already working as teachers at the primary and secondary education levels must be established. There are courses directly or collaterally linked to media education in degrees of Communication, Primary Education and Secondary Education. Titles like “Educational technology”, “Audiovisual culture”, “Critical analysis of media”, “Educating the look: cinema and school” can be found in the syllabus, although most of them are elective courses, instead of core subjects for all students.

Within the academic structure of the Master program in Teachers’ Formation it is also present the acquisition of competences related with media literacy, mainly in all those indicators related to audio-visual language and ICT, like “Innovation in technological teaching” or “Technological didactics”. However, there is not any specific course about media education in the full program [...] Actually, there are no courses to prepare the teachers on “media teaching” but “teaching with media.” (Ibid., 5-6).

According to Grandío et al. (2014), media literacy has been recently integrated as an optional course within Communication and Education Degrees in Spanish Higher Education.

In the field of teachers’ education in digital competences and media, Grandío et al. (2014) have highlighted the trajectory of the main open university in Spain (UNED) and the organisation of numerous courses and workshops by the Centres of Teachers (CEP) about teaching audio-visual media and digital technologies.

Garcia-Ruiz, Ramirez-Garcia and Rodriguez-Rosell (2014) stated that “Access to technology and the Internet are having a positive impact on all levels, personal, family,
professional and social. However, the influence of the media has not been accompanied by the promotion of media literacy. The development of the media skill among citizens, especially young people and children, in order to exercise a critical and active role in relation to the media, is a key development in this society of media prosumers. This would resolve the convergence of an urgent need to improve the training of young audiences as responsible citizens capable of consuming and producing media messages in a free, responsible, critical and creative way." (Garcia-Ruiz, Ramirez-García, & Rodriguez-Rosell, 2014, p. 15)

Martinez-Abad, Olmos-Miguelanez, and Rodriguez-Conde (2015) concluded a paper “by confirming the effectiveness of the program, noting the importance of explicit teacher training in basic skills, specifically in information literacy competences, and analyzing the relevance of this type of training for the integration of basic skills in the teaching-learning processes developed in the different subjects. Finally, the future study of the impact of the information literacy teacher training on learning achieved by students is proposed, considering the limitation of splitting the competence into its constituent parts to evaluate it, without regard to its holistic nature.” (Martinez-Abad, Olmos-Miguelanez, & Rodriguez-Conde, 2015, p. 46).

2. SCOPE

a. Stakeholders

According to Grandío et al. (2014), media literacy has become an area of great interest for Spanish policy-makers, teachers and scholars. Digital Agenda for Spain (2013) has been designed following the priorities in the Digital Agenda for Europe, the recommendations of the highly-rated experts, the answers provided by a large number of companies and players in the digital world, and the suggestions made by public policymakers within the scope of the Central State Administration “All of the ideas were used to develop a proposal for a Digital Agenda for Spain that underwent public consultation between 25 July and 30 September, 2012” (Government of Spain, 2013, p. 12).
The *EU Kids Online II* stakeholders’ forum was conducted to produce policy recommendations of national relevance, and to ensure that key national stakeholders (from governments, child welfare agencies, safety advisors, educators, industry, parent groups, etc.) were aware of the project. Jorge, Cardoso, Ponte, & Haddon (2010, p. 70-72) produced a general report based on national reports of different countries. In particular, the Spain process of consultation was carried out by sending a questionnaire to a total of 25 stakeholders. Most responses were from non-governmental organization (NGO) or governments and public bodies related to internet security. Except the TUENTI (the most important Spanish social network), industry representatives and telecommunications companies did not respond to the questionnaire. A list of the stakeholders consulted by the authors of the Spanish report is presented as follows:

- Alberto Pérez Cueto - Regional Government of Asturias
- Natalia Martos, Tuenti – Social NetworkingSite -Industry
- José Luis Zatarain, INSAFE [Protegeles] - NGO
- Jorge Flores - *Pantallas Amigas* [Friendly screenshots] - NGO
- Ricard Martinez, Spanish Data Protection Agency
- Edurne Barañano, Basque Data Protection Agency
- Javier García, Ombudsman for Children
- Mónica García - Basque Government
- Jose Maria Sánchez Burson, Innovation and Participacion Observatory. Regional Government of Andalusia
- Innovation and Participacion Observatory. Regional Government of Andalusia,
- *Fundación CTIC Sociedad de la Información* [Information Society Foundation]
- Ofelia Tejerina, *Asociacion Internautas* [Spanish Association of Internet users] -NGO

"Children in Spain are using the internet more at home than at school. Since the use of mobile devices has spread among children the time spent and access has
increased. Spanish parents tend to manage their children's safety by taking a restrictive approach that protects children from many of the risks but may also limit the development of their online levels of skills and opportunities.”

The role of the Spanish team of EU Kids Online:

- It signed a collaboration agreement with INTECO - Instituto Nacional de Tecnologías de la Comunicación (National Institute for Communication Technologies) - an organisation dependent upon the Spanish Ministerio de Industria, Energía y Turismo. As a centre of excellence, INTECO is a service offered by the Spanish Government to work towards the development of cybersecurity as an instrument for social transformation and for developing new fields of innovation.
- It has been a partner of Google in their Family Safety Center in Spain since 2011.
- It is member of the Comité de Expertos para la Seguridad de los Menores en Internet [Expert's Committee for the Safety of Minors on the Internet], which is coordinated by Protégeles.
- It has received some funding from the Ministry of Science and Research in order to join on a self-founded basis the Net Children Go Mobile research network.
- It was given some financial support for research by the Basque Government due to its research contributions.
- It has joined some working groups about Minors and the Internet set out by Red.es, a public corporate entity attached to the Ministry of Industry, Energy and Tourism (MINETUR), which is responsible for promoting the development of the Information Society in Spain.

b. Special needs education policies

“The organisation and structure of early childhood intervention (ECI) services in Spain, are to a large extent built upon a regional or local decentralised model. Although the tendency in policy measures is to ensure equal access to ECI services for all citizens, in practice there are differences between regions and between urban and rural areas.” (European Commission, 2013, p. 18)

“One important mode of facilitating early intervention is to give children with learning disabilities priority access to educational centres for pre-primary education. This is the case in [...] Spain, Sweden and the Netherlands. Support can be provided at home, in outpatient or day care clinics, in early intervention services or in pre-primary settings (European Commission, 2013: 12)

“European countries with selective rather than comprehensive school systems (including the Netherlands, Germany, and both the French and Flemish
communities of Belgium), where pupils are divided along ability lines, correspondingly have a relatively high number of special schools per head of population. In contrast, Spain [...] with comprehensive school systems, have less special provision, and countries such as Italy and Greece, in the absence of any historical tradition of special schooling, educate almost all children in mainstream schools.” (European Comission, 2013, p. 13)

“Most of the countries surveyed had early intervention services and speech therapy, and systems whereby families can receive economic support and family counselling; a majority also declared to have respite programmes and social work services available in case of poverty. However, in less than a third of the countries surveyed did the supply of these services match demand. The accessibility of services often depended on fulfilling specific requirements, notably income, residency and severity of disorder. The average waiting time for receiving services was again highly variable, typically between one and six months. Encouragingly, all participant countries had at least one national parent support group or patients’ organisations for ASD. In Spain [...] these organizations provided diagnosis and intervention services.” (European Comission, 2013: 19)

“Teachers can access learning resources for students with special needs in repositories administered by the MoE (Procomún) and in the repositories of the Autonomous Communities. The MoE includes among its priorities the need to use ICT in order to adapt to the different abilities and conditions of each student, which means using them to adapt learning for students with disabilities or special needs.” (European Schoolnet, 2015, p. 10)

➢ **ICT for inclusion**
The Ministry of Education offers an online course that address ICT and inclusion:

- Education for inclusion: equal in diversi.
- Educational response to students with Attention Deficit Hyperactivity Disorder (ADHD):

Moreover, the Instituto Nacional de Tecnologías Educativas y de Formación del Profesorado (INTEF) [National Institute of Educational Technologies and Teacher Training], as part of the Ministerio de Educación, Cultura y de Deporte [The Ministry of Education, Culture and Sports] of Spain, also offers digital self-study materials in:

- Inclusive education. People with autismo spectrum disorders.
- ICT resources for special educational needs (SEN) students.

The course materials are open to all teachers/people, also without enrolling to the courses. Alongside the training, the MoE also offers digital materials to help teachers deal with the attention to diversity and materials on the subject of reading and writing for special education needs students (contents can be freely accessed).
Among the different actions undertaken by the Autonomous Communities, the project developed by the Autonomous Community of Aragón focused on augmentative and alternative communication has a special relevance. It has grown to become an international reference for its useful materials and tools.

- **ICT for inclusion** (early school leavers, migrants, etc.) and **special needs** (physical, mental, emotional) (European Schoolnet, 2015, p. 5)

Since one of the areas of INTEF is teachers' competence development through teacher training, specific online courses addressing the topic inclusion and ICT are offered:

- Course *Educación inclusiva: iguales en la diversidad* [Inclusive education: equal in diversity];
- Course *Respuesta educativa para el alumnado con TDAH - Déficit de atención e hiperactividad* [Educational response to the students with ADHD - attention-deficit hyperactivity disorder]. In addition, face-to-face courses, seminars, conferences related to inclusion are offered:
  - Course *Convivencia, participación y prevención de la discriminación y la violencia en las aulas* [Coexistence, participation and prevention of discrimination and violence in the classrooms]
  - Seminar *II Jornada Educativa para la población gitana* [II Educational Seminar for the Gypsy population].

It is important to recognize the efforts of the *Fundación Orange* to support people with autism spectrum disorders (ASDs). In this area, they are betting on the use of technology and digital solutions to improve the quality of life of people with ASD. They have also boosted innovative recreational activities adapted to these people and they have developed a work of diffusion, through audiovisual works, to help the society to raise awareness about this disorder.

c. **Contests to support DL**

Youth e-perspectives on migration – Barcelona

- *YeP4europe* [Youth e-perspectives on migration – Barcelona] "the project addresses the call priorities to develop innovative methods for enhancing digital skills of young people and to promote their active citizenship and social entrepreneurship at the same time. Digital skills will be developed in parallel with skills for civic participation in dealing with current social issues.”
- *Premio Escuelas para la Sociedad Digital 2015* is a commitment of the *Fundación Telefónica* to reinforce the transformation of the educational environment in Spain to an increasingly digital society. After evaluating hundreds of projects
submitted to the competition will be chosen 12 finalists and announced the six winners (first and second prize).

- **Concurso Reportero Escolar** is a competition initiative that began in the 2014-2015 academic year and it was promoted by the International University of La Rioja (UNIR), by the digital newspaper "larioja.com" and the Government of La Rioja. Similar competitions exist in other Spanish communities. In the first edition participated 450 students from 20 schools of the community of La Rioja. They were distributed in 91 teams, led by 32 teachers. The students were enrolled in the *Enseñanza Secundaria Obligatoria* [Compulsory Secondary Education] (age 12-16) and the competition was carried out through the website. The contest consisted in the elaboration of a digital newspaper by teams, in order to make known the school life, its neighborhood or its city, as well as to initiate itself in investigative journalism relating with hot topics in its surroundings. The project is part of the improvement of reading competence, integrated in the initiative called by *Aprender leyendo* [Learning by reading] of the *Consejería de Educación del Gobierno de La Rioja* [Ministry of Education of the Government of La Rioja], which aims to improve reading comprehension, oral and written expression, audiovisual and technological communication (Canavilhas, Merino-Arribas, Adoración, & Kroth, 2016).

d. **Evaluation/Assessment mechanisms**

The degree of media literacy of the Spanish population has very low rates in practically all dimensions, related to its limited ability to critically understand the media and to evaluate its multiple and varied contents, as well as to establish effective forms of communication in emerging contexts (Ferrés, Aguaded-Gómez, & García-Matilla, 2012).

Since 2014 the European Commission, in cooperation with its Media Literacy Expert Group, continued its endeavours to measure Media Literacy and in this regard it offered to Member States to participate to a pilot initiative. The participation was on a voluntary basis only and ten countries have expressed an initial interest. The Commission organized network meetings in Brussels providing participants with the opportunity to exchange ideas and discuss progress and offered them coordination and the support of an advisor to assist individually Member States and to facilitate their work as well as collective exchanges. Without any financial support from the European Commission, the following countries were engaged: Austria, Belgium Flanders, Lithuania, [...] and Spain carried out pilot’ exercises (Celot, 2015).

According to Grandío et al. (2014) there is no official evaluation on the levels of media literacy of the Spanish citizens. Precisely, the *Conseil de l'Audiovisual de Catalunya* [Audiovisual Council of Catalonia] has funded a pioneering research in Spain to define audiovisual competences. Based on an input from 45 experts coming from the Latin America, Spain and Portugal, the proposals were discussed in a scientific seminar
involving 14 Spanish scholars. The team elaborated a final document defining "media competence" within the EU framework of the Education and Training 2010 and directly related to the concept of "digital competence" used by the Council of Europe. According to this document, the two criteria for media literacy levels are:

1. the interaction between emotion and rationality (citizens should be able to rationalize the emotions that are involved in media receptions)
2. the interaction between critical reading and creative expression (citizens should be able to make a critical analysis of media products consumed and to produce media messages) (Ferrés, 2006, p. 11).

The six dimensions covered by media competence are: language, technology, media programming and production, ideology and values, media reception, and aesthetics. Joan Ferrés and Alejandro Piscitelli (2012, p. 75-82) have revised the indicators contained in each of these dimensions.

The Consell de l'Audiovisual de Catalunya [Audiovisual Council of Catalonia] and the University Pompeu Fabra launched a new project, between 2007 and 2010. This research analyzed the media competence of Spanish citizens through several indicators. It provided quantitative results from 6626 surveys among the 17 Spanish regions (Ferrés et al., 2012). The results confirmed the low level of media competence among Spanish citizens in general. Indeed, only 4.6% of the people who took the survey could be considered literate in this area. The dimension where Spanish citizens ranked highest was 'technology' and the issues where they ranked lowest were aesthetic, and ideology values. Given the links between media literacy and the levels of governance of a country, this project recommends the implementation of media education into the curricula at all levels of formal education (Grandío et al., 2014).

According to Celot (2015) Spain was active through the University of Barcelona which provided a number of information based on previous Europe-wide studies in which they were involved such as Emedus and FilmEd as well as national pieces of research such as the DINAMIC project, carried out with the Ministry of Economy and Competitiveness. Spain aimed to collect indicators and data about media literacy bringing up to date previous European Commission studies criteria. Celot (2015) mentioned that, in line with those criteria, indicators were weighted and the respective data were reported on the following:

- **Media Availability** (mobile phones, Internet, television and broadband penetration rate (Source Eurostat, 2013);
- **Media Education.** Media Education is included in Spain's curricula under cross-curricular approach. Indicators about teacher training in Media Literacy (40%) and in Digital Literacy (30%) and Media Literacy Assessment Framework (30%) (Emedus/UAB, 2014);
- **Media Literacy policy** (Indicators: Laws (40%), Reforms (30%), ICT plan (10%), Media Literacy Plan (10%), Specialised Media Literacy/Education Public Agency (10%). There is no specific plan on Media Literacy in Spain but some legal texts include references (Emedus/UAB, 2014);
Civil Society. Indicators: Media Education Associations, Film Festivals, Media Education Initiatives, Media Literacy Awards (Emedus/UAB, 2014; FilmEd, 2014);

Media Industry. Indicators: 60% Large ICT Enterprises related to Media Education and 40% Industry associations related to Media Education (Emedus/UAB, 2014);

Use Abilities. Computer skills, Internet skills, Internet use, Mobile phone, buying on internet, reading online newspaper, internet banking (with different weights) (Eurostat, 2013);

Critical understanding. Indicators: Literacy 80% (OECD-PIAAC, 2013), Reading 20% (OECD PISA, 2013);

Communicative Abilities. Indicators: Posted messages to chat rooms, Interaction with public authorities, uploading content, chat sites, create a web page (with different weight). (Eurostat, 2013).

Other outcomes:

Communicative abilities: Students participation in film production (30.5%) (FilmEd, 2014). Media literacy context: Film Literacy teaching (primary: 15.6%; secondary: 24.1%) (FilmEd, 2014).


Díaz García (2015) highlighted some proposals of ICT competency standards for citizens in general:

1. The Acreditación de Competencias en Tecnologías de la Información y la Comunicación (ACTIC) [Accreditation of Competences in Information and Communication Technologies]- Government of Catalonia, is an interdepartmental project carried out by the Dirección General de Telecomunicaciones y Sociedad de la Información del Departamento de Empresa y Ocupación [General Directorate of Telecommunications and Information Society of the Department of Enterprise and Occupation]. It is following the guidelines of the European Union (2006) and the OECD (2006) on competency learning considering digital competence as one of the basic competences. It is the certification of digital competence, understood as the combination of knowledge, skills and attitudes in the field of ICT that people develop in real situations to achieve some objectives effectively and efficiently (Acticweb.gencat.cat, 2015).

Through the ACTIC, any person over the age of 16 is allowed to demonstrate its ICT skills through a computer test. The test is telematic, although it must be done in a collaborating center authorized by the Generalitat [government] (there are more than 300 centers distributed throughout Catalonia). Those who successfully pass the test will obtain a certificate (basic, intermediate or advanced), which allows them to accredit a certain level (1, 2 or 3, respectively) of ICT competencies. These certificates are, therefore, a tool that can facilitate the obtaining of a job, professional promotion, access to virtual learning tools or obtaining a professional certification. The Level 1 corresponds to elementary and
limited domain in the use of ICT, the Level 2 corresponds to effective mastery, autonomy and adaptability in the use of ICT in relation to the general scope of application; and, the Level 3 corresponds to advanced domain in the use of ICT, ability to take full advantage of the benefits, to innovate and to give support to other people.

2. Certification in ICT from Occupational Training of Servicio Valenciano de Ocupación y Formación – SERVEF [Valencian Service of Occupation and Training]. Several training actions with contents related to Digital Competence and to ICT in general are offered within the Strategic Plan of SERVEF (2014-2020) which introduces measures of Training for Employment. The courses are oriented to people of the "ICT sector", whose main activity is linked to the development, production, marketing and intensive use of ICT. These are official courses of the main technology producers (CISCO, LINUX, MICROSOFT, ORACLE, RED HAT, VMWARE and ICT Projects) with the aim of preparing the students for the Management of computer projects and business management, as well as to obtain the official certification recognized by the manufacturer, after passing the relevant exams. The courses, as well as the corresponding certification tests are totally free. The programming for this pilot project in the period 2014/2015 consisted in 24 training actions and it is part of the occupational training.

According to Díaz García (2015), in Spain there are two types of competence certifications in ICT specifically addressed to university students:

- **CertiUni**: is a project promoted by the Conference of Rectors of Spanish Universities (CRUE), in collaboration with the Ministry of Education and the Spanish Confederation of Business Organizations (CEOE), which allows universities to offer accreditation systems in some of the most required competences. It is a step in the process of approaching the Spanish university to society and the adaptation of university studies to the reality of the world of work. CertiUni allows universities to use a common system in the evaluation of competences.

In particular, the certifications of computer competence are designed by the main multinationals of the ICT sector (Microsoft, LPI - Linux Professional Institute, Oracle,...) and highly valued by the business world. More and more companies are requesting job candidates to accredit their knowledge and ICT skills through official certification in the technological solution for which they need a professional of guarantees. There are three levels of ICT certification, depending on the objectives and areas that the candidate wishes to accredit:

1. Certifications of desktop (Microsoft Office).
2. Certifications of associated level (Adobe, Autodesk, HP).
3. Technical certifications (Microsoft, LPI, Zentyal,...)

They are tests of automatic correction. At the end of the exam the candidate is informed of the result, receiving a report which indicates his grade and his percentage of successes and errors.
In the case of approved, the multinational sends directly to the student the certificate.

- **Competencias Informáticas e Informacionales** (CI2) [Computer and Informational Competences]: it appears in the CRUE-TIC (Sectoral Commission on ICT) and REBIUN (Network of University Libraries). In 2014, five informational competences were described as following:

  - CINFO1 - Search information
  - CINFO2 - Evaluate the information
  - CINFO3 - Organize and manage information effectively
  - CINFO4 - Use, publish and disseminate information respecting ethical and legal standards
  - CINFO5 - Keeping up-to-date and sharing information on the network

**e. Rights**

According to Navarrete (2006) the rights for young people in the digital field in Spain are divided in transversal and technological rights as follows:

**Transversal rights:**

- Right to the freedom of information and expression through ICT. Derived from the homonymous fundamental human right, it reflects the need for the young people to use the ICTs to express themselves without obstacles. This right depends on the rights to training in and through ICT and to the physical access to ICT.
- Right to training in and through ICT. It is very important to emphasize that the ICT rights can not be realized without first ensuring that the young citizen has the necessary knowledge and skills to use them. This guarantee implies that the ways to put it into practice should be explained, instead of leaving everything to the risk of self-learning. On the other hand, given that ICTs are transforming the educational landscape in depth, it is essential to ensure that the young people can access to the advantages offered by ICTs for the different educational levels.
  - Right to access to the culture through ICT.
  - Right to the communication.
  - Right to the socialization in the network society.

**Technological rights:**

- Right to the physical access to the ICT. The ICT rights can not be realized without first ensuring that the young citizen has universal access to the ICT. On the other hand, this right would be linked to the right to universal access to ICTs of the entire population independently from the area of residence or work. The guarantee of this right and the right to training in and through ICT is critical to the competitiveness and social health of the nations and communities.
  - Right to access to the information and communication technologies.
- Right to the connectivity. The most relevant fact of the connection arrangement on the part of the Spanish young population is precisely their non-connection. If we wanted to describe the importance of the connectivity for incorporating the Youth into ICT, we would say that the connectivity is the key, while the computer is just the door (Navarrete, 2006).

- Right to the security on the network. Another of the critical aspects for the incorporation into the Information Society is the establishment of safety parameters which guarantee the normal development of the young people, avoiding potential damages to the individual and to the society in general.

- Right to the accessibility. The incorporation to the ICTs poses serious problems for those who already have certain difficulties in their daily lives. The accessibility, term coined to promote access to "all".

- Right to access to the Information Society through the provision of the basic elements for this purpose: a computer and a network connection.

- Right to participate in the e-society.

- Right to ensure the updating of the Human Rights in the Information Society.

With regard to transversal rights, the absolute identification of young people and ICTs carries with it the danger of leaving aside some essential questions such as the social and economic possibilities for access to ICTs by the disadvantaged young people. On the other hand, the contact of young people with ICT reveals different expected and unforeseen aspects of their social importance and of its most relevant needs. ICTs have changed the methods of work, the training, the education, the political participation, the socialization, the relationship with public administration, the social communication, approach to culture, etc. Every day the access to employment and the labor market goes beyond knowing and managing the languages/technologies. The problems of intellectual property, copyright, have been transformed by the appearance of these technologies.

In the field of the education, the learning methods and the structure of the educational system are changing in all dimensions. The internet and the multimedia have provoked a real revolution in the classroom, contributing to the redesign of teachers' pedagogical practices and allowing students to seek innovative ways of learning through different tools (Navarrete, 2006).

Some digital rights organisations in Spain:

- **Access Info** is an organisation based in Madrid and it works to advance and defend the right to know in Europe (and globally). It is against excessive secrecy and believes that access to information is the key to protect the human rights.

- **Asociación de Internautas** [Association of Internet users] intends to defend the citizens' interests front to the big telecommunications companies, computer companies or other competent organism in this scope.

- **Asociación de Expertos Nacionales de la Abogacía TIC - ENATIC** [Association of National Experts on ICT Advocacy]. It was born with the intention of joining and representing in the field of institutional advocacy all those lawyers whose activity
is directly or indirectly related to the Information and Knowledge Society and to the world of the ICTs. It aims to place itself at the forefront of the Digital Law, leading the new trends in Institutional Law in this field. In February 2014, this association organized, with the General Council of Spanish Law, the first international congress of Digital Law. It was held at Secretariat of State for Telecommunications and Information Society (SETSI) and addressed issues such as: the legal and jurisprudential aspects of cybercrime; challenges and threats of the information society; the right to security in the digital age; the right to privacy; the right to access to ICTs; the freedom of expression, opinion, thinking and religion on the internet and control authorities against to the right of ICTs. In addition, the ENATIC-ISMS Forum presented a report on the legal responsibility of the cyber-based companies.

f. Identifying initiatives promoted by private companies

- Fundación Telefónica and Liferay train 21 young people in the digital competences most required by the companies.
- Fundación Telefónica and the Ayuntamiento de Tarragona will train in digital competences more than half hundred of young people.
- Fundación Telefónica organizes each year National Encounters of Young People and Teachers with the aim of strengthening the teamwork, innovation, creativity and to promote educational continuity through the technologies.
- Fundación Orange has promoted a study in Digital Education titled: “(Almost) Everything to do - A social and educational look at the Fab Labs and the movement maker”. It delves into the reality of collaborative spaces of creation and digital manufacture and their impact in the social and educational fields.
- Fundación España Digital o the development of the Digital Society and the Digital Economy by developing actions, independently and autonomously, which could benefit its extension and accelerate its implementation, claiming from the Civil Society of the Digital Transformation of Spain. The Foundation is driven by professionals from different social sectors, who have stood out for their work and dedication in the Digital Transformation and Development of Spain. The Foundation was formally constituted on 2007 under the name of FUNCOAS and it is the responsible entity for the annual attribution of the "España Digital" Awards.
- Fundación Rafel del Pino contributes to the training of Spanish leaders and entrepreneurs, to disseminate knowledge and to defend freedom, mainly through the promotion of the free individual initiative and the principles of free market and freedom of enterprise. The Foundation also contributes to improving the health and living conditions of citizens as well as improving the knowledge of Spanish History and the preservation of its historical and cultural heritage. The Foundation organizes training programs, awards scholarships of excellence, organizes lectures and meetings, contributes to the preservation of the Hispanic heritage and promotes research.
Rocasalvatella is a consultant accompanying the digital transformation of businesses and organizations. It publishes reports related to digital literacy, digital economics and digital education.

Observatorio para el Análisis y Desarrollo Económico de Internet (ADEI) has presented a report in 2014 titled "La digitalización de la economía española: Diagnóstico sobre los obstáculos que limitan su desarrollo" (The digitization of the Spanish economy: a diagnosis of obstacles to its development), which defends the urgent necessity in reducing drastically the digital divide. In October 2015, in Madrid, it was organized the 1st International Congress of the ADEI Observatory on "El Valor de la Digitalización de la Economía, Análisis y Propuestas".

Observatorio Nacional de las Telecomunicaciones y de la Sociedad de la Información (ONTSI), which manages the public entity Red.es.

Fundación UNED promotes a series titled "Audiovisual Literacy for people at risk of exclusion (ECO Project)" on the MOOC designed by "Alfabetización digital para personas en riesgo de exclusión social".

Fundación Esplai promotes the citizenship committed with social inclusion, the socio-educational action and the responsible use of ICT, with a special dedication to the childhood and the youth, and betting on the promotion of the Third Sector.

In particular, with the projects:

- **Telecentre Multimedia Academy** (TMA) (2012-2014) was a project aimed at offering multimedia literacy learning itineraries specifically designed for adult education with the aim of creating ICT centers that become reference points for the multimedia topics. It was funded by the European Commission, *Lifelong Learning Program - Grundtvig Multilateral Projects*. During the project, 6 courses were designed and developed, three of which for adults with a level of competences in basic multimedia (photography, audio and video) and other three for people with advanced skills (project coordination, digital narrative and audiovisual production). This project and its results were addressed to the entities that are part of the Telecentre Multimedia Academy project consortium, to adults, to teachers and trainers, to dynamic people actively involved in the training of adults, to the telecentres and adult training institutions, to the responsible for public policies at both European and Spanish level.

- **RED CONECTA** (implemented since 2001) is a network of socially-based telecentres in the Spanish territory whose purpose is to promote the social inclusion of all people using ICT. Red Conecta is aimed at the general population, but especially at 13 to 30 year olds, at women with difficult of access to the world of work, at the long-term unemployed and at people with difficulties of social inclusion. The Telecentro Red Conecta is a space with computer and/or technological equipment where a monitor guides the process and accompanies the people in their learning, plans the activities and adapts them to the needs of each group, advises the citizens
and encourages the networking with nearby institutions (associations, business sector and local administrations). In some of the centers there are volunteers collaborating with or carrying out the work of the monitor.

The main lines of the Red Conecta are:

- The Digital Literacy of the citizens through the Practical Computer (learn to use the computer and with different operating systems).
- The enhancement of employability through the ICT and improving users’ curricula with the official and international certification in Microsoft digital competences (Proyecto Beca.MOS).
- The responsible Internet: security, privacy, rights, duties and responsible consumption. The use of social networks and Internet for shopping and for small businesses.
- The ICT Practices: the use for day-to-day management from electronic procedures to multimedia edition.
- The mobile devices: digital literacy through mobile devices and tablets (Proyecto Mayores APPTivados).
- The ICT Innovation: the creative use of ICT. Resources for learning programming, video games, etc.

For the development of these main lines, it is imperative the continuous training of professionals. The training of ICT professionals is developed through the Academia de Telecentros y Organizaciones Sociales.

3. FUTURE

a. Recommendations/Challenges

1. Instruction of basic reading skills. Fajardo et al. (2015) reflected on the need to consider the instruction of basic reading skills as part of the current efforts to improve digital reading literacy.
2. Development of a media literacy curriculum. Aguaded et al. (2015) refer to be necessary to develop a course in media education in the school curriculum. Also Peek and Beresin (2016) show the potential benefits for the development of a media literacy curriculum. Pessoa, Serrano and Rodríguez (2015) reinforce the need to include in the educational agenda the opportunities of informal learning and media literacy for social inclusion. Dornaleteche-Ruiz, Buitrago-Alonso, and
Moreno-Cardenal (2015) encourage academic institutions to design specific digital literacy educational programmes to help citizens become media empowered. Abad-Alcalá (2014) proposes a number of new methodological approaches to tackle the design of digital literacy programs for older people based on criteria such as degree of autonomy and the possibilities for enjoying everyday life, proposing the development of programs based on contextualism, incrementalism, motivation and absorption processes. Grandío et al. (2014) considered essential the inclusion of the course on Educación Mediática [Media Education] in the mandatory school curriculum of Spain and the integration of media literacy into the school curricula at all levels of formal education, as was first called for by the European Parliament in 2009. To date, Spanish education policies have been quite lax in including media education in school curricula and it has been reduced to a transversal competence rather than a subject by itself. Furthermore, the initiatives implemented have had a large focus on the instrumental side of media literacy, devoting most of the efforts to teaching the management of systems and use of technical equipment (Grandío et al., 2014).

3. **Establishing a multidimensional education.** According to Grandío, the school curricula should integrate a media education course in which students are required to develop all dimensions of digital competence. The six dimensions introduced by Ferrés (Ferrés et al., 2012) could serve as a baseline for creating a multidimensional framework: language, technology programming and production processes, ideology and values, audience reception, and aesthetics. At a first stage, experts should agree on the basic contents needed to have the most impact on multimedia competence and make the students both multimedia and multiliteracy competent. Once defined, those goals should be incorporated into the school curriculum. Given the widespread use of Internet and social networks, this course should address civic media literacy (Grandío et al., 2014).

4. **Promoting media education among adults (especially among the elderly).** Media literacy policies must also address adults even though no specific institution exists that can easily reach them all (Livingstone, 2011). Research suggests that adult development of media literacy depends less on their age or prior knowledge than on the existence of a powerful motivation (Livingstone et al., 2013). Some extraordinary experiences at Spanish universities challenge the belief that the eldest segments of the population are reluctant to use new technology. Elderly people can be as competent as youth in handling technology to communicate with their children or with people of their own age (Grandío et al., 2014).

5. **Supporting the role of Educommunicators.** Isolated experiences of teachers involved with media education have always been found, but these individual efforts must be scaled-up and underpinned by a solid public policy framework. In Spain, many professionals and teachers do not have sufficient training in media education so postgraduate education must be promoted, as well as workshops and other training initiatives, to create a well-trained professional body in the field. Attention should also be given to other stakeholders in the education system, such as parents. The number of parents associations should be increased,
and those already existing should be encouraged to organize talks and workshops on media literacy (Ibid.).

6. **Establishing an independent State agency to regulate media content with enforcement capacities.** In Spain, there is no agency at the State level with a mandate to regulate and monitor media content, specially the protection of childhood. The experience of the Audiovisual Councils in Spain is so far reduced to some regions like Andalusia, Navarra and Catalonia. An even among the existing ones, only the Audiovisual Council of Catalonia meets on a regular basis. Although their activities and research have been enriching and there have been attempts to create an Audiovisual State Council, this project has fallen through due to partisan conflicts (Ibid.).

7. **Creating educational programs and encouraging quality content on media.** Media should promote public service integrating educational spaces on TV, especially at the stations affiliated to a public broadcasting system, such as *Televisión Española* - TVE [Spanish Television]. To date, commercial channels have shown a marginal commitment to innovative cultural, high quality content (Ibid.).

8. **Supporting further research in order to consolidate knowledge and share best practices with other countries, specially, in South America and Europe.** Grandío et al. (2014) considered the need to support the development of a methodological framework to assess media literacy in Spain, as well as to monitor the efficiency of new public policies arriving in that area. Grandío also mentioned that this framework would preferably be aligned with other efforts undertaken in other partner countries, especially European, in order to facilitate cross-comparisons and knowledge sharing initiatives (Ibid.).

9. **Creating a credible and official system of evaluation of the digital competences of all citizens** (inside and outside school institutions and educational systems). Digital literacy has become increasingly important as a competitive differentiator. Bridging the economic and development gaps depends to a large extent on increasing digital literacy and access for people who have been left out of the ICT revolution.

10. **Bridging the Digital Divide.**
    Considering the Digital Divide in the terms of OECD, relating to the gaps in access to ICT - threatens the ICT "have-nots", whether individuals, groups or entire countries, and also as a consequence of the non-realization of the rights already described. Navarrete (2006) defends that if the adequate connectivity is not guaranteed, if the acquisition of the equipment by the young is not favored, if the global accessibility to the ICTs is not guaranteed, if equal and universal access to the Information Society is not controlled in schools or in the educational centres, if we do not prepare young people in these tools, then we will face with the dreaded *digital divide* in Spain. In the case of young people, this gap not only divides the individuals in two groups, but also produces a rupture of the socialization link. A gap that will be added to the other social inequalities, causing new cases of social exclusion, of discrimination, of inequality of opportunities, with the handicap of having a stronger multiplier effect than the previous ones.
Cánovas (2014) concludes that the most important goal should be the bridging of a real Digital Divide which does not stop growing, which is the one that separates "Digital consumers" from "Digital producers" (whose manage the internet productively and with creativity, generating content, generating opinions, transmitting ideas, creating new proposals and spaces, etc.) According to Navarrete (2006), the later the technological discrimination is addressed, the cost of overcoming will be multiplied exponentially. So, Navarrete highlighted the necessity of a clarification of some basic elements that determine the goal of the society in get a competitive Youth, involved in the issues of public affairs and in making young people full citizens through the use of ICT (Navarrete, 2006).

b. (Best) Practices /Case Studies

According to Grandío et al. (2014), the trajectory of projects related to media education in Spain has not been as fruitful or wide as in other countries and, therefore, the consolidation of this area has been weak and slow. The first actions came from education programs of the regional governments and media. As part of those efforts, a number of projects were created such as: Prensa Escuela, Atenea, Alhambra, Mercurio, Zahara XXI and Atlántida. In most cases, those programs were limited to using press, video, new technology, television, and Internet as sources of information, without considering them as a source to develop further, for instance as critical or creative thinking (Grandío et al., 2014).

Parallel to the education policies focused on a technological approach, there have been joint initiatives among journalists and teachers to support media literacy, whose practical actions to raise awareness of the need for a critical and creative media learning system can be understood as one of the most productive and positive response of the civic society on media education in Spain. Some of these initiatives are:

- **Mitjans**: an initiative focusing its actions, including media literacy issues, on the publication of newsletters and organizing workshops on Communication and Education.
- **Comunicar**: a group that conducts training activities, including curriculum guidelines or conferences and seminars.
- **Spectus**: a research group of audiovisual topics for Education.
- **Teleduca**: proposes training courses, seminars, meetings, workshops and other training or consulting on Education and Communication addressed to teachers, to media professionals, parents, centers of adults, etc.
- **HEKO Kolektiboa**: its purpose is to create and promote a meeting space for flexible and pluralistic reflection on Education and Communication that opens different lines of work: to seek and establish different forms of intervention and access to the media to spread the subject and make the public aware of the need to improve the contents, especially from television; to generate a network of links and
contacts to facilitate the exchange of experiences and activities between groups and individuals who are working in this field.

- **Entrelínies**: proposes in each program show the twenty-four hours in various institutions, organizations, companies and emblematic buildings, as well as a day in the life of a famous person from Spain.

However, it should be pointed out that the above joint initiatives among journalists and teachers have hardly reached any citizens over the past years because they target teachers and students of primary and secondary schools but not other sectors of the society.

**Teaching and training material:**

- **Recursos TIC** website created by the Spanish Ministry of Education whith interesting information about the history of media;
- **Instituto Nacional de Tecnologías Educativas y de Formación del Profesorado** website of the Spanish Ministry of Education whith educational resources for teacher and media educators. It includes a specific section and sources for media education;
- **Societat de la informacio** website with didactic material that in a very simple way could teach everyone how to write with the computer.

**Research material and its disseminitation:**

- **Revista Iberoamericana Comunicar**: Scientific Journal of Media Education, is published by Grupo Comunicar Ediciones, begins to systematically publishing research papers that are increasingly important in this new field and occupies a stimulatory role of scientific thinking.
- **Proyecto IMPOLIS** aims to develop a model for measuring the impact of ICT policies that can be used to guide efficient decision making for the harmonious and sustainable development of the Knowledge Society.

**4. BIBLIOGRAPHY**


5. ESSENTIAL LINKS

Agenda digital para España
Axencia para a Modernización Tecnolóxica de Galicia (AMTEGA)
CEDEC
Centros para a Modernización e Inclusión Tecnolóxica
EducaLAB
Instituto Nacional de Tecnologías Educativas y de Formación del Profesorado
Pixel-Bit
Comunicar
UNED

6. IDENTIFICATION OF EXPERTS

(Data collected from experts will only be used in future publications)
Name: Jose Antonio Perez  
Institution: Xunta da Galiza. Consellería de Cultura, Educación e Ordenación Universitaria - Centro de Formación e Recursos – Ourense  
Position: ICT consultant of the teacher training network of Galicia - Ourense

Name: Alex Gonzalez  
Institution: Axencia para a Modernización Tecnolóxica de Galicia- AMTEGA  
[Agency for the Technological Modernization of Galicia]  
Position: Educational consultant