From Lisbona 2010 to Europe 2020: Strategies for the Digital Citizen Analysis of a Case History

Ida Cortoni

Ida.cortoni@uniroma1.it

Sapienza Università di Roma (Italy)

Abstract

Digital competence is one of the main topic with which the second decade of the XXI century begins and about which international policies are investing in education and experimentation, to guarantee the development of a new meaning of citizenship, not only oriented to technological innovation, but also to critical awareness and cultural responsibility of whom lives in a context without some prescriptive and legal ethics and moral value, capable of guaranteeing respect for the other, but also for oneself as free and autonomous subject for a conscious and accurate choice. Often there is a gap among theoretical principles, ideal for the development of the future, and the real context, where the social, relational and educational capital, without forgetting that financial and structural, are responsible for cultural and digital inequalities, that stop the achievement of ethical objectives to improve civic life and the growth of the same concept of citizenship.

The presented case history is a small picture about what has previously been said: the profile descriptions of digital competences of a small target group of students and teachers involved in the European project, On Air (2008/2010), stimulated reflections about the searching of a different meaning of digital competence, beyond shared labels in public debate. The project involved five European countries (Lithuania, Bulgaria, Romania, Belgium, Poland) and a sample of 1116 teens between 11 and 16 years old and 469 teachers. The main outcomes now involve directly more institutions that could be more responsible of their own mission: the University for a more accurate study and methodologically proved on a digital competence theme; the school for a more active role in its function of cultural mediation and the local policies to promote the innovation, the research and the education against to the cultural poverty, often at the basis of the structural poverty of a country.

1. Introduction

The first response to the challenge of a more competitive and dynamic economy for modern times arises from the European Commission from Lisbon of 23rd and 24th March 2000, that recognizes the strategic importance of lifelong learning in facing new challenges of the knowledge and digital convergence society.

The rapid economic and technological changes of the contemporary era require a continuous training of competences and qualifications of the citizen, in order to promote the employability and mobility in the European job market. From here, we will need to address the development and implementation of some basic key competences, on which we could especially reflect on the objectives and organizational strategies for the entire instructional system.

These last competences represent a crucial point of reference in achieving main European objectives, such as the *development of active citizenship and social inclusion*. They can be differentiated in: 'traditional' competences that are oriented towards the conceptual dimension such as mother tongue languages, foreign languages, basic competences in mathematics, sciences and digital fields, cross-disciplinary competences such as learning to learning, the social and civic competence, the spirit of initiative and entrepreneurship, awareness and cultural expression.

These are certainly meta-cognitive and, therefore, more sophisticated and complex that need to be integrated in the educational system. They require planning and a strategic commitment on behalf of educators.

The following post-Lisbon European dispositions[1] deal with the importance of investment in lifelong education and key competences, emphasizing the 'transversality' from both a meta-cognitive and methodological point of view. Firstly, it refers to the development of a citizen's autonomous and participative orientation with respect to the flexibility and fragmentary nature in the contemporary context. Secondly, it is connected to strategies and methods of teaching oriented towards creativity and innovation (Brussels, 8-9 March 2007).

A new question of instruction and training is requested in education, that begins from modernization of organizational strategies and logic, through technological processes, to the cultural training of teachers and finally arriving at the change of the principles of management, recruitment, organization of the activities inside schools, capable of establishing innovative and motivating learning.

However, there are still questions about how we can coordinate these multiple aspects in harmonic ways, reconciling the request of conceptual competences, among which we recognize digital ones, the transversal competences of social and cultural orientation to the contemporary society, valuing innovation, research and creativity, as well as cultural traditions.

If we focus our attention on digital competence, we can affirm that it represents something more than a conceptual competence. It is a crucial point among which the educational challenge is oriented in the technological and linguistic convergence era.

It seems to show a transversal nature for its power of meta-cognition in young people, for its conceptual and structural organization of concepts, as well as for the linguistic affinity in the expressive world of new generations. This competence stimulates cognitive and emotional processes, facilitating flexible and reticular reasoning. The same conceptual production can make use of the mix of many codes and meanings from several cultural and disciplinary contexts

The importance of digital competence appears even in a methodological perspective because it can facilitate the educational relationship, the emotional imprinting and, therefore, it can favor the achievement of citizenship objectives.[2].

Digital competence (digital literacy) in these multiple meanings (conceptual, meta-cognitive and methodological) was one of the main issues of *On Air, the European project on media education*. It was explored and analyzed from two perspectives: one that was didactical of teachers and one of the usage of youth, in order to reflect on citizenship in the digital convergence era.

There is, therefore, a need to go further in-depth in the issue, considering new media literacy (Jenkins, 2010) in the direction to spread participative and democratic culture in the digital era, with respect to contemporary exaggerated individualism (Morcellini, Mazza, 2008), often also clear in cultural behavior, and to the apparent state of real or virtual peer-to-peer sociability that could be a temporary area of self-construction.

The first main activity of the survey was the analysis of the type and the level of competence in the habits and behaviors of 1116 students between the ages of 11 and 16, as well as 500 teachers in 6 European countries: Italy, Belgium, Romania, Lithuania, Poland and Bulgaria (Cortoni,, to be published).

The second main activity was especially focused on the planning and experimentation of educational packages that use digital languages as instruments and didactical strategies that were transversal to stimulate critical and conscious thought. However, we will put forward in this paper only a summary of some results that emerged from the survey.

2.   About Competence: Background

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[1] Commission of 21st November 2001 «Realization of an European space for lifelong learning», the following resolution of the European Council of 27th June 2002, and the Council of 18th December 2006, through the recommendation 2006/962/CE.
[2] Goals of citizenship: planning, communicating, learning to learning , problem solving, collaborating, being autonomous and conscious, interpreting information and individuating links and relationships.

A conceptual clarification about the perspective through which the concept of 'digital competence' was addressed is fundamental for an adequate interpretation of On Air's results.

"Knowing how to use technologies of the information society with familiarity and a critical sense for work, recreation and communication" is the definition from the recommendations of the 2006 European Parliament and Council about which media competence "is supported by core activities in ICT: the use of computers in the gathering, assessing, storing, producing, presenting and exchanging of information as well as to communicate and participate in collaborative networks via the Internet" (Celot, Tornero, 2008, p. 120).

In general, Dijk (2005), defines digital competence as 'a group of necessary skills to operate a computer and on the Web, to search and to select information and to use such information in order to achieve their objectives' (Dijk, 2005, p. 73).

It refers to three areas in the learning process:1. The knowledge that the subject progressively acquires from daily experience (tacit knowledge), or from educational processes that are more or less institutionalized (explicit knowledge) (Polanyi, 1966, Nonaka, Takeuchi, 1997) – conceptual competence. 2. Know-how (skills) which is the application of acquired knowledge in different contexts in order to resolve problems. It implies awareness of the process and motivations at the base of an application (meta-cognitive transversal competence). 3. Knowing-how-to-be (habits) that indicates the acquisition of an awareness, a maturity in interpretation and in action in life, with the capacity to evaluate and analytically observe psychological, social and pedagogical variables (transversal methodological competence). For the better description of this issue, it is possible to compare these principles with other readings and interpretations of digital competence:

- the "operational competence" (or computer literacy), connected to the technical capabilities of technologies. It corresponds to basic literacy, facilitated "qualification" (Aune, 1996) and raises an instrumental perspective. Some scholars speak of media reading (Ceretti, Felini, Giannatelli, 2006) or culture (Celot, Tornero, 2008). These competences certainly fall within the technological dimension (Calvani, 2010) and represent basic skills in all respects (Jenkins, 2006).

- the "informational" competence (digital literacy or information literacy) refers to a critical awareness of media (Ceretti, Felini, Giannatelli, 2006) or critical (Celot, Tornero, 2008). It includes the development of analytical skills, understood as the deconstruction and reconstruction of a text from a semantic or syntactic point of view. In more pragmatic terms, this dimension refers to cognitive area (Calvani, 2010), and to media control concept (Jenkins, 2006) because it is connected to the ability of distinguishing among several types of communication and languages, while highlighting functions, styles, narratives and grammar rules for each one. This competence can be traced to two types of activities: 1. the accurate and targeted search and selection of information from different sources and their critical, conscious and personal reorganization; 2. the recognition of the authority of sources, issues of privacy and copyright, requests of assistance, the downloading of videos and music, instant messaging services, the use of MSN, etc. This type of competence is certainly "expressive" (Aune, 1996) as it helps in the critical and creative strengthening of the individual. It requires care and attention. The consequent cognitive development is transversal because it can guarantee awareness and cultural expression also outside the media context (know how).

- "strategic competence" (multimedia literacy) requires a high level of activism from an individual. Even here, we can speak of competences of expression and strengthening (Aune, 1996). It provides for the ability to re-contextualize skills and knowledge in specific work and social contexts. It is connected to the conscious use (Ceretti, Felini, Giannatelli, 2006) or the comprehension (Celot, Tornero, 2008) therefore certainly fall under this part (visual literacy). It corresponds to Jenkins' competence of regulation (20006) and Calvani's ethical dimension (2010). This kind of competence facilitates the spirit of initiative and the entrepreneurship that assume autonomy with an high level of maturity, self-awareness and at the same time self-control and self-regulation (and then a form of learning to learning)

  Citizenship (Ceretti, Felini, Giannatelli, 2006; Celot, Tornero, 2008) is also attributable to this last level which is the highest level of competence that an individual can acquire with diverse media and corresponds to the pursuit of empowerment.

- A transversal competence to those previously considered is production, writing (Ceretti, Felini, Giannatelli, 2006) or creative (Celot, Tornero, 2008) which include the level of individual activism.

It indicates the capacity of "making", creating, constructing, inventing, re-contextualizing and re-adapting the characteristics of diverse media languages in many contexts. This level is transversal with others because the quality of writing and production increases and improves with the increase of reading skills, critical analysis and conscious use of these media.

3.   On Air: Analysis of a Case History

The framework for distribution and diffusion of media competences of new generations could be summarized by the image of a pyramid: the base refers to technical skills (conceptual competence) that are shared by many young people and are often connected to the frequency and quantity of use that facilitates a familiarization process. From here, we have the acquisition of reading and writing skills that are the basis of media literacy.
The wide distribution of these competences is connected to the manner of use and the nature of the relationship. In fact, such skills and knowledge are linked to the daily experience of learning-by-doing which require tacit and informal knowledge and are heavily influenced by individual and social variables compared to a path of standard curriculum.
We can include writing skills or basic media production in the second level of the pyramid. These are amateurs who do not have a deep knowledge of a device or forms of critical analysis of its language. Even in this case, skills and knowledge are acquired through direct practice rather than through instructional training.
     So, from On Air's results it was clear that, despite the geographic origin and the socio-cultural, educational and technological features, the new generation's media, where young people said to have highest competences are mainly MSN, downloading and, in some cases, social networking. With respect to the mobile, traditional SMS and listening to music (mp3) or the production of videos and photos are the strategically most-used functions. The level of competence reduces itself when the focus of attention is oriented on the PC and camcorder, about which a youth doesn't have many competences. This condition is evident for activities that they cannot learn through experiences, but with instructional design. Some examples are the audio or light control or post-production. In fact, these activities require a cultural mediation to learn more specific knowledge and skills about media.
It is already becoming possible to identify some reflexive anomalies from these first two levels. First, the picture may not be uniform since not all youth are "geeks", not for lack of cognitive or psychological predispositions, but for lack of adequate economic, infrastructural or structural opportunities that allow them to be in step with the times and follow the latest trends in technology.
In this perspective, in the On Air Project we have seen a strong social and geographic gap between youth of the Western Europe (Italy and Belgium) and youth of East-Europe (Romania, Bulgaria, Poland and Lithuania). In the first case, we can speak of 'multimedia strategic' youth, in the second case we can introduce the expression 'Intermittent generation', with respect to the digital system, oscillating between disconnected and informational.
Secondly, the cultural and educational context of the family, friends and the school within which children grow and live cannot be underestimated in the media experience of young people. These contexts can provide a lot of stimuli in order to effect discoveries in the world of technology and above all they can accompany young people in the exploration process leading to a critical reading of media content and a diverse awareness (Calvani, 2010; Bentivegna, 2009). What determines the increase of individual competence is the influence or impact of social and relational capital (Livingstone and Helsper, p.311).
From here, into the same geographical context it is possible to see a clear intra-generational gap among young people with respect to media system.
The reading itself, as we follow this line of reasoning, acquires connotations and levels of different qualities, depending on its capacity for dialogue with other aspects of communication that go beyond simple knowledge of technical language and relate to the critical analysis of text. To cite just one example, greater technical knowledge (reading) certainly entails the construction of a progressively more sophisticated message in terms of aesthetics or codes. If we add different critical knowledge to this, the product will be built with only different awareness, knowing how to communicate different aspects of a media text (semantic and syntax). If then we add thinking to the context of hypothetical use of a medium to the production of this text, strategies of effective and therefore involving,

participatory or communicative production with potential users can be activated.

Critical competences relative to media use are positioned at a level higher in the pyramid. They can mature in a child when he is exposed to a culturally fertile context and dialogue, even with communication technologies.

With an increase of critical awareness of young people, they can lower the risks of use and increase the online opportunities of on-line relationship, creation and innovation and therefore, the benefits. However, this aspect seems to be latent in surveyed youth through On Air.

Teens surveyed in On Air cannot certainly be considered digital citizens, but even the surveyed adults (teachers) are included in this category. The use skill, accompanied by the digital natives expression, in some cases isn't a guarantee of critical and conscious use. It depends on the fact that Media education experiences seem still less rooted in the surveyed educational contexts and confused with simple Media Literacy.

Finally, conscious use is placed at the highest level of the pyramid. The ability of selecting content and a recognition of underlying ideological readings are all required, from which active and autonomous use inevitably derive. The individual chooses media content and services based on his interests, motivations and cultural and subjective cognitive objectives. At this level, even production/writing becomes more creative because it is accurately built by combining the aesthetic dimension with the semantic dimension of the text, while taking into account specific contexts within which or for which it is built. Citizens are placed at the top of the pyramid as they are the ultimate expression of media competence, according to which all elements and media and communicative strategies are considered, evaluated and analyzed in an ecosystem (De Kerkhove, 1993). This namely requires taking into account the social and cultural aspects that exist regardless of the medium, but that the same medium could contribute to define and exploit, highlighting opportunities and reducing risks.

Considering single media it is possible to draw the following map of intergenerational competence:

- With respect to the web, teachers (Italian, Belgian, Polish and Bulgarian surveyed) show a cognitive and emotional almost-unbridgeable distance with respect to other activities: most don't use social network, MSN and still less participate in specific forum. Teachers put forward poor skills for cross-media activities, such as listening to music on the Web or watching TV or participating in interactive games. They don't download or upload files, don't create blog or web pages. With respect to the average of teachers, only Belgians are mainly informational: the level of web competences are rather high (medium level) on almost all functions, showing a minimum competence for only more creative activities. Contrary, Italian and Belgian teens (between 11 and 16 years) reflect the internaut's profile (Bentivegna, 2009, p.62), especially with respect to relational activities and those with subjective activism. If we have to construct an order of priority, in the first step of the classification there will be: MSN, Skype, downloading and social networking. Relational and active *strategic youth* then is the first expression to summarize the relational and sharing activities on the web. If geographically we consider the East European countries, the picture changes almost radically: for Bulgarian and Romanian students we can speak about web-disconnected generation. Between strategic and disconnected youth we can find informational intermittent Lithuanians and Poles, especially for cognitive and relational activities. Finally they say to have lowest competences for all functions, especially those of 'media activism'.

- With respect to the mobile, all teachers are mainly mono-media people with medium-low competences with all functions that provide the mixture of languages. The unique strategic activities that they are using are the SMS usage (medium-high level of competences), then in some cases (Italy, Poland and Lithuania) they have informational competences with respect to the production of videos/photos. Contrary, the Italian and Belgian teens are cross-media and eclectic with mobile: they send SMS/MMS, forward files through Bluetooth and listen to mp3, play and produce videos/photos. Italians become informational when they surf on the web, they don't chat and don't video-call.

- With respect to the PC, the differences between young people and adults reduce themselves because the level of competences decreases in both cases: they don't use the PC in strategic and active way. In particular, teacher's competences increase and student's competences decrease. So, teachers are informational for production of musical compilation and photo album. The level of competence reduce itself radically when it is focused to more creative and productive activities, or we can find the absence of competences. In the use of graphical programs or video production,

our sample is divided between informational and disconnected, strengthening the hypothesis of intra-generational gaps. Bulgarians and Romanians are completely disconnected.

- With respect to the camcorder usage, the highest competences of Italian, Belgian and Bulgarian teachers are concentrated especially on the practical skills, connected to the daily experience. The other activities (from production to post-production) are very low for Italians and Belgians and aren't for Bulgarian teachers.

  Also surveyed students reduce their competences in the use of the camcorder. Italian, Belgian, Polish, Lithuanian and Bulgarian teens are more informational than strategic for basic functions, for the simple post-production or for video-making that provide the choice of the images and sequences. The level of skills becomes medium-low (operational) for Italians, Belgians and Bulgarians for more sophisticated activities.

4. Conclusion

The process of diffusion and increase of Media Education and Media Literacy seem to be contaminated and compromised by imbalances that we can see in other contexts in the network of European instructional systems. The first imbalance is the relationship between communication ethics (related to Media Literacy principles at school to spread awareness and capacity of analysis of reality) and its effective radicalization, communication and diffusion in the social context. A sort of muffled cry, recognized from ethical point of view, but not feasible from the operational point of view. This condition is exasperated by a contradiction. On one hand we can perceive the receptive fertility of teachers, sensible to media languages that they constantly perceive every day as educational emergency in front of digital natives, on the other hand they are stifled by the weight of a public administration and the immobile instructional system, that is static and strongly top-down in their operating mechanisms. Contrary, the policy represents an insurmountable barrier that sees media literacy as a dangerous tool of acquisition of mass awareness and a risk of reduction of control and power. From here, there have been less financial investments in this field, especially for the transversal dimension of the digital competence.

The conclusion is that teachers often live a climate of contrasts and ethical, strategic and linguistic contradictions that contribute to rapidly spread a sense of discomfort, uncertainty and especially discouragement and de-motivation in 'being an educator today'.

So, despite the approach of instructional system to the development of key competences, there are still latencies about the development of conceptual and transversal competencies of teachers. In this discourse we cannot not speak about the training of evaluation methods and new forms of didactic organization.

The surveyed teachers in On Air are mainly disconnected and, in some cases, intermittents with respect to cross-media behaviors. They are not web experts, their use is oriented to basic activities, such as searching and surfing, or sending e-mail; with respect to the mobile, they are mono-functional, because their usage is limited to sending e-mail and, sometimes, to the production of videos/photos.

The expressive and fruition distance among generations with digital media represents a problematic point of modern education, because it risks breaking the transmission of knowledge and values, indispensable to develop conceptual and transversal competences, requested by Lisbon. In this way, the objectives of citizenship and social inclusion are also compromised, as well as the training of digital citizens: young people are certainly multitasking with respect to technologies, but only from the esthetic and formal point of view. The interruption of the communicative relationship to orientate the citizen in contemporary society, compromising the same education of young people, also when they aren't in front of the media system.

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