

Requested: 04-07-2011 Received: 18-07-2011

Accepted: 12-09-2011 DOI: 10.3916/C38-2011-02-03

> Preprint: 01-01-2012 Published: 01-03-2012

Alfonso Gutiérrez & Kathleen Tyner Segovia (Spain) & Austin (USA)

Media Education, Media Literacy and Digital Competence Educación para los medios, alfabetización mediática y competencia digital

This article addresses some possible relationship between education and media in contemporary society and explores the role that formal education should play in both the integration of media in the curriculum and the digital literacy skills necessary for the 21st century. The authors discuss here different theories and approaches that have dominated international media studies, media education and media literacy in recent decades. Confusion and misunderstandings in terminology for contemporary literacy in a complex, global and intercultural environment are explored and the authors present some inclusive categories for 21st century literacy such as media literacy, digital, multimodal, critical and functional. Interpretations of media literacy and digital competencies are discussed with particular emphasis on the current European regulatory framework. The authors warn that reductionist interpretations that focus on applied technical competencies with devices, hardware and software have the potential to severely limit media literacy education. Instead, the authors stress critical approaches as central to media literacy. In addition to technical competency, the authors highlight the need to include a broader and deeper analysis of the social uses, attitudes, and values associated with new media tools, texts and practices.

El presente trabajo aborda las posibles relaciones entre educación y medios en la sociedad actual, y el papel que le corresponde a la educación formal tanto en la integración curricular de los medios como en la alfabetización digital necesaria para el siglo XXI. Se parte de distintas concepciones y enfoques que en las últimas décadas han predominado en el estudio de los medios y en la educación y alfabetización mediáticas en el panorama internacional; se intentan subsanar algunos problemas terminológicos derivados de la riqueza idiomática del mundo global e intercultural en el que nos movemos; se buscan posturas integradoras y se propone una alfabetización para el siglo XXI que se caracteriza por ser mediática, digital, multimodal, crítica y funcional. Se analizan posibles interpretaciones de educación mediática y competencia digital prestando especial atención al actual marco normativo europeo y se advierte de dos posibles peligros: reducir la educación mediática al desarrollo de la competencia digital, y reducir la competencia digital a su dimensión más tecnológica e instrumental: centrarse en los conocimientos técnicos, en los procedimientos de uso y manejo de dispositivos y programas, olvidando las actitudes y los valores. Para evitar el reduccionismo y el sesgo tecnológico se recomienda recuperar para el desarrollo de la alfabetización mediática y de la competencia digital los enfoques más críticos e ideológicos de la educación para los medios.

Media, education, literacy, digital, media literacy, digital competence, media education.

Medios, educación, alfabetización digital, alfabetización mediática, competencia digital, educación mediática.

Dr. Alfonso Gutiérrez Martín is Professor at the School of Education of Segovia of the University of Valladolid (Spain) (alfguti@pdg.uva.es).

Kathleen Tyner is Associate Professor in the Department of Radio-Television-Film of the University of Texas at Austin (USA) (ktyner@mail.utexas.edu).

1. Introduction

Rapid changes in the uses of information and communication technologies in recent decades continue to generate both subtle and signficant restructuring in every sector of society. As such, the pervasive access, ubiquity and daily reliance on multimedia devices are the «new normal». Their omnipresence is particulary resonant with younger generations of users who approach information in diverse and innovative ways that position their daily uses of ICTs and related new media practices as an essential life skill.

Although education is widely seen a pathway to personal, academic and career preparation, the education sector lags in its comparative response to ICTs. On the whole, its response is piecemeal and calls into question the traditional assumptions about the design of the learning environment and its effect on widespread social and cultural needs within the context of contemporary media forms, content, skills and practices. Among the main features of the increasingly global and digital society of the early 21st Century are multiculturalism, the increased capacity to store and retrieve of information, access to broad social networks, and the ability to use computer networks to transcend time and space. Instead, it could be said that the education sector is an anachronism in its own time as it continues to prepare students for a society that no longer exists.

When the number and types of literacy devices used by students outside of school are compared with the literacy tools and texts used in formal education, it is obvious that young people must unplug to participate in the classroom. In the process, they must also power down their own habitual ways of working with information and related cultural interests. As a result, students transverse a polarized existence of formal and informal learning environments. One the one hand, they spend most of their day in schools that are far removed from their own authentic media and information skills, interests and needs. On the other hand, they pursue these interests and hone their skills through peer learning and knowledge networks in the world outside of school. With few bridges between these parallel worlds, many students do not even bother to try establish connections between the informal and formal education sectors.

From our point of view, the most dangerous ramifications of this mismatch is not the lack of access to digital devices or "gadgets", nor the fact that access to timely and relevant information is routinely blocked in classrooms. Instead, it is much more troubling that widespread ideals and assumptions about the mission of compulsory schooling as a preparation for social and civic life are unraveling. As schools increasingly marginalize the every day literacy skills of students (and increasingly teachers), this social contract is broken. Given the narrow versions of literacy practiced in the classroom, it obvious that formal schooling is not necessary. Students would prefer to learn about the functions of ICTs through informal environments such as peer networks, online or even at their local computer store. The social contract for formal education implies much more, with new forms of literacy at its center. To reinstate public confidence in the value of schooling for social preparation and personal fulfillment, we envision a critical, dignified and liberating concept of literacy. Efforts to reconnect and support contemporary literacy practices in formal schooling go well beyond competencies with digital devices and networks. It is also important that formal education incorporates skills and practices that support students' critical autonomy and awareness of the relevant contexts of their media use. These efforts also go well beyond a reactive response to the commercial interests of the dominant digital media companies of the moment.

A broader vision for the accommodation of new literacy skills will require significant restructuring in the education sector. With the dominance of high-stakes standardized testing in formal schooling, it remains to be seen how schools can transform widespread content delivery modes into critical, participatory designs for the learning environment. In order to prepare individuals for life in a global multicultural, digital world, formal education must also trascend the narrow focus on test scores and grades to embrace students' existing knowledge, skills and practices, learned outside schools. In this way, ICTs are central to the restructuring of most contemporary formal schooling environments and a catalyst for revisioning the mission of compulsory education to support and encourage active citizenship and self-expression in a democratic society.

Many scholars stress the need to expand the concept, content and purposes of traditional literacy in order to accomodate contemporary digital, multimodal and media literacy. In prior articles, we stress that digital literacy or media literacy are foundational to basic education in an Information Age (Tyner, 1998; Gutiérrez, 2003). In recent years, a number of scholars have defined these new literacy concepts as audiovisual literacy, informational, multimodal, media literacy, digital competency and so on. Although the technical proficiencies may differ, these multiple definitions of literacy actually correspond with the same concepts, aims and purposes of traditional literacy. It is easy to envision a time in the near future when these multiple terms may be described simply as «literacy».

2. Integrating Media Into the Curriculum

Historically, as each new medium is adopted in society, schools have attempted to integrate them into the classroom curricula. From the uses of film in the 21st Century to the current promotion of whiteboards in the classroom, each new device or medium has been promoted as a benefit and a support to learning. In this tradition, contemporary digital media, networked communication and ICTs are most often introduced into the curriculum at the discretion of the teacher, as a an ancillary content delivery tool.

Given the ubiquity and dominance of multiple media in the informal education of children and youth, it is not as if schools are unaware of the pervasive influence of media. For many years, schools have attempted to integrate media tools and texts into classroom practice. However, it is becoming increasing apparent that it is not enough to simply teach and learn "with" media, but that a comprehensive educational environment also requires that students study "about" media in order to analyze the world of new texts, technologies and their relevant contexts. In the English-speaking world, the study of media has emerged as "media studies" which addresses the reception of media content, distribution and related aesthetic and production processes within historical, economic and cultural contexts, usually from a social science or humanities theory base.

Now more than ever, it is necessary to clarify and bridge the "with" or "about" approach to media education. At every level of education, media and digital literacies are often approached from a strictly technical perspective, resulting in a goal of literacy competencies based on the way that hardware and software applications can be mastered and directly applied to traditional learning environments. As a result, media education is often associated with simply attaining the applied skills needed to navigate computer networks, virtual worlds, software platforms, social networks or media production tools and editing devices. Scholars and practitioners have attempted to clarify the differences between teaching "with" versus "about" media by defining applied mastery of ICTS as "digital literacy" and alternatively defining critical approaches to media as "media literacy". However, the distinction between the two can still be confusing.

This dichotomy still favors the teaching "with" media over the "about" media approach in educational institutions. For example, educational technology courses in teacher training curricula, when they are offered, tend to support the "with" approach. Critical media studies and media literacy courses have struggled without much success for a place in all segments of the compulsory education curriculum in different countries. There are many reasons for this, not the least of which is the dominance of commerical interests in the integration of classroom resources associated with media education, such as computer hardware, software, and presentation tools. The potential for increased ICTs in the classroom and the resulting market share for hardware and software sales in the education sector, increases the advocacy for their integration by commerical interests, but it does not necessarily mean that the new media tools are being integrated in a way that supports learning in a meaningful way.

Media studies are an important component of media education and often offered as an elective or single subject area in Anglo-Saxon schools. However, media studies is also only one strand in a comprehensive program of critical media education. This breadth and complexity is based in part on the fact that media literacy, like traditional literacy, cuts across the curriculum in an interdisciplinary way. In the last century, media education was centered on curricular strategies to enhance the critical reception of the traditional mass media. Along these lines, one of the most widespread definitions from that era was proposed by the Ontario Ministry of Education (Canada) and is still used to this day: "Media literacy is concerned with helping students develop an informed and critical understanding of the nature of mass media, the techniques used by them, and the impact of these techniques. More specifically, it is education that aims to increase the students' understanding and enjoyment of how the media work, how they produce meaning, how they are organized, and how they construct reality. Media literacy also aims to provide students with the ability to create media products" (Media Literacy Resource Guide, Ministry of Education Ontario, 1989).

Many authors and researchers have offered different views and approaches to media education and media literacy over the past three decades. We refer the reader to an inventory by Aparici (1996) for a detailed catalog of these theorists from the late 20th Century. More recently, and equally illustrative, are two specific issues dedicated to media education and media literacy by the scholarly journal Communicar (Various, 2007; 2009).

The rapid adoption of digital networks and new information and communication technologies substantially modifies media forms and content, as well as users' relationship with information. This is reflected in new approaches to media education as it moves beyond the critical analysis and practices related to radio, television, film and pop culture to the critical reception and uses of ICTs such as mobile devices, the Internet, video games, social networks, WebTV, interactive digital boards, virtual worlds, and so on.

Since Gilster (1997) popularized the concept of «digital literacy», many terms have been used to describe the skills and knowledge needed to navigate in the converged, digital media environment of contemporary

society. They include «multiliteracies» (Cope & Kalantzis, 2000; Kress, 2000; Jenkins & al., 2006; Cope & Kalantzis, 2009; Robinson, 2010); «multimedia literacy» (The New Media Consortium, 2005); «new media literacy» (Jenkins & al., 2006; Dussel, 2010); «media and information literacy» (UNESCO, 2008: 6); and «media literacy education» (Alliance of Civilizations, www.aocmedialiteracy.org).

It is not our intention here to delve deeply into the syntax and nuances of the diverse terminology used to describe the various literacies related to the uses of media and ICT, such as information literacy, multimodal, transmodal, multimedia, digital, audiovisual, media, and so on. However, it seems necessary in the context of this bilingual issue of «Comunicar» and similar academic environments to clarify some terms for discussion.

Grizzle (2010) addresses this challenge and identifies two basic trends that shed light on the relationship between the converging areas of media literacy and information literacy. On the one hand, information literacy sees media education as a subset of its broader tenets. On the other hand, media literacy concept-tualizes information as a subcategory of its broader spectrum of concerns. UNESCO (2008: 6) attempts to bridge these two concepts with the term «media and information literacy». By integrating the two concepts, UNESCO seeks to acknowledge the underlying aim of both is to support the compendium of skills, competencies and attitudes that children, youth and other citizens need to function and thrive in a digital society.

For the purposes of this discussion, we will promote the integrative position implied by "media and information literacy". Too much time is spent highlighting the differences and defending various literacies as they compete for space in the school curriculum. In the process, the common purposes of both new and old literacy practices in a comprehensive education is too often lost. And so, we will characterize various literacies and multiliteracies as different, complementary dimensions of a multiple, global literacy. In this regard, instead of "new literacies" it may be more convenient to discuss new dimensions of literacy. By necessity, it can be assumed that these dimensions are best discussed within the contemporary context of ubliquitous, digital convergence and therefore includes media literacy, digital literacy and multimodal literacies.

The concept of literacy in Spain (alfabetización) has a much different connotation. In Spanish, the term is understood as a process akin to educating, teaching or instructing. In other words, «alfabetización» implies process rather than result. In contrast, «literacy», according to the «Merriam-Webster Collegiate Dictionary» (www.mw.com) is «the quality or state of being literate». This underscores the English concept of literacy as a competency that results from the educational process. In the English-speaking world, «media education» is the teaching-learning process and «media literacy» is the result, that is, the knowledge and skills that students acquire (Buckingham, 2003: 4).

Although the "RAE (Real Academia Espanola)" dictionary (http://rae.es/rae.html) also defines literacy as "action and effect of literacying" (acción y efecto de alfabetizar), when talking about media literacy, practitioners usually refer to a process or action and not to the result. Recently, the "RAE" incorporated the term "alfabetism" as "basic knowledge of reading and writing" (in opposition to "analfabetism", or illiteracy. "Alfabetism" is closer to the English concept of "literacy". Although perhaps tedious, in the spirit of cultural competency, it is not possible for a fruitful bi-lingual discussion of terms such as "media education" or "media literacy education" to take place if these nuances are not understood.

In any case, the concept of literacy that encompasses media literacy, digital literacy and multimodal literacy implied in the UNESCO term, «media and information literacy», also diverges into two concepts that we must include here for purposes of discussion. These are:

Critical Literacy. In recent decades, some authors who speak of new literacies, especially those more focused on new digital devices than on their uses by people, have ignored or rejected more critical or analytical approaches to media education. As noted by Gutiérrez (2008), the basic principles of a critical education are perfectly compatible with the tenets of media education.

Functional Literacy. In 1970, UNESCO (1970: 9) explained this concept in this way: "Functional literacy differs from traditional in that it is not an isolated, distinct, or even an end in itself, but it allows us to consider the illiterate as an individual or a member of a group, according to a given environment and to a developmental perspective". In later UNESCO (1986) documents, the "illiterate" concept is diminished and the social characteristics of literacy and its contribution to the social good are stressed: "Functional literacy refers to people who can perform all activities necessary for the effective function of their group and community and that also allows one to continue using reading, writing and calculation for his own development and that of their community".

Although dated, the statement is useful for an understanding of the fidelity of these concepts on a continuum of alphabetic to media literacy. It positions literacy as the ability to encode and decode messages in different languages and media, compatible with contemporary assumptions about media literacy. Furthermore, the

concept of community that UNESCO refers to in 1986 is still applicable to a global, multicultural society today. It stands to reason that as media becomes increasingly social and universal, so does media literacy.

3. Media literacy and digital competence

Although the term «literacy» is closely associated with orality, alphabetic practices and digital media, it can be considered, in its broadest sense, as a threshold to support basic life skills and access to social capital. In the beginning, the basic competencies for print literacy was to decode written text (to read) and to produce alphabetic and numeric texts (to write). Since the second half of the last century, this decoding and encoding process also included audiovisual codes and languages. The current development of ICTs demonstrates again that form and content are closely related to processes involving the encoding of information and the structuring of knowledge. The point is that literacy is a concept that is vibrant and dynamic and constantly evolving. Its attainment provides the basic foundations for improving one's life chances and engaging in society with purpose and dignity.

In December 2009 the European Parliament approved the introduction of a subject of "educación mediática", (Media Education) a term that has come to replace "educación para los medios" (Education for the Media) in Spanish. With a focus on access, it was recommended that this subject, or related course, should be integrated into the curriculum at all levels of schooling. In the report that was adopted by the plenary, the members of Parliament also stressed the need to improve the infrastructure in schools so that children are ensured access to the Interent. It also promoted media literacy for adults who are engaged with children's media use habits, such as parents and teachers. The report explains that media literacy involves the ability to understand and critically evaluate various aspects of different media and to accurately filter information received through a torrent of data and images. The report argues that developing this capacity is essential to leveraging the opportunities of the digital age.

The balance between an emphasis on analysis (reading) and production (writing) has been an issue in literacy education and this report is no exception. The report adopted by the European Parliament positions copyright protection and strong intellectual propery rights as central tenets of media education. In other sections of the report, the Parliament recommends the production of media in the practical training of students and teachers. However, concepts of media education related to the creative and participatory production of multimedia products through shared knowledge creation, free culture, Creative Commons, or other free licensing platforms are not mentioned in the report. As a result, the recommendation favors a model of media "consumption" with strong protection for commercial interests and ignores issues of fair use and protection for user generated content in the "prosumer" model.

Again in this regard, the UNESCO (2008: 6) definition for media education provides a more balanced concept for media and information literacy that supports both critical reception and critical production of media products. Although it is fair to say that the social norms regarding fair and ethical uses of media are unresolved in a time of rapid proliferation of digital practices, the UNESCO concepts imply user responsibility for the ethical uses of information in order to participate in a cultural dialogue, within the context of critical autonomy and creative production. In this regard, it can be said that some potential core competencies for media and information literacy potentially revolve around «5Cs»: Comprehension, Critical Thinking, Creativity, Cross-Cultural Awareness, and Citizenship.

In this context, we can discuss «competencia digital» (digital competence) in a more comprehensive way. Also, in the spirit of cultural competency, it is important to note that although «digital literacy» is usually translated from Spanish to English as «alfabetización digital», the Spanish term «competencia digital» (digital competency) is actually closer to the broader competencies for literacy in contemporary society.

Since the last decades of the 20th Century, educational reform discussion have increasingly centered on concepts of competence-based or standards-based designs for learning as the dominant discourse in the education sector. A prime example is the European Commission and Member states participating in the Eudcation and Training 2010 Work Programme. The Programme established key competencies for lifelong learning, published in the "Official Journal of the European Union" (December 30, 2006: L394). Member states of the EU are encouraged to use these competencies as guidelines to direct their educational policies. In this context, Spain now considers the core competencies as a basic educational goal of compulsory education, as reflected in its current Education Act.

For example, in the Real Decreto 1513 (December 7, 2006), eight core competencies are defined for the Primary Education curriculum:

- Linguistic communication.
- Mathematical.
- Knowledge and interaction with the physical world.

- Information processing and digital.
- Social and civic.
- Cultural and artistic.
- Learning to learn.
- Autonomy and personal initiative competencies.

Of particular relevance to our discussion here is number four, information processing and digital competencies, which encompasses the ability to seek, obtain, process and communicate information which can then be transformed into the creation of knowledge. These competencies incorporate a diverse range of skills, ranging from access to information to the capability to analyze it, produce it and distribute it in a variety of forms, including the uses of information and communication technologies as essential tools for information gathering, learning and communication.

Information processing and digital competencies are also associated with searching, retrieving, sorting, storing, recording, processing and analyzing information by strategically using a variety of strategies to verify the source and discourse of the communication for each form of media communication (textual, numeric, iconic, visual, graphic, sound, etc.). This process includes decoding and recognizing patterns of communication that can be applied to different situations and contexts. It includes knowledge of the affordances for different types of information, their sources, their placement and the specialized vocabulary used for each media and distribution network.

According to the Commission of European Communities, information and digital competencies «are those that citizens require for their personal fulfillment, social inclusions, active citizenship and employability in our knoweldge-based society». According to these proclamations, consideration of the importance of the digital and media dimensions of new, global literacy practices in the educational sector is of the utmost importance. There is no doubt that digital competency is an essential life skill in contemporary society, but in formal education, this has translated into an overly restrictive and narrowly applied set of tool-based competencies. This diminished and isolated iteration of digital competency ignores the broader and deeper critical literacy skills necessary to navigate in the Age of Information. We argue here that repeated efforts to isolate the two terms «media literacy» and «information literacy» has the potential to divide and confuse efforts to integrate authentic literacy education into the curriculum. It becomes increasingly clear that the proliferation of digital media must be addressed by the education sector, however efforts to isolate applied skills from critical skills also has the potential for more clashes over curricular turf in formal schooling.

We noted earlier that the rapid development and adoption of ICT hardware and software may paradoxically inhibit efforts to integrate media and information literacy education, as these devices may lead practitioners and policymakers, more or less unconsciously, to more technical and applied approaches to media education that are focused on the uses and manipulation of equipment. As previously noted, the embrace of applied approaches over critical approaches is also supported by vendors who hope to market new devices to the public education sector, but also by anxiety in the general public related to the potential of workforce development for high tech job. In the end, current efforts to position "digital competence" as the most efficient way to address the need for educational technology distracts from much-needed attention to other essential priorities for media literacy education.

Buckingham (2011) articulates this confusion in his examination of the way that the meaning attributed to digital literacy tends to be narrower and related to the technology itself, much as we see in articulations of "digital competency". According to Buckingham, a reductionist view of media literacy is spreading, due mainly to the proliferation and spread of digital technologies, but also to the way that educational bureaucrats and policymakers implement the curricular integration of new media. Priorities are given to content that supports the "know how" of technology used for information management.

In addition, media literacy is often associated with protectionist approaches, such as Internet dangers. Historically, protectionist approaches occur with the popular adoption of each new medium and related genre, from print to comic books to film to television. In this regard, networked, digital media revives some of the same protectionist approaches for media education that have been seen in the past, such as the promotion of media literacy education in schools in the 1980s as a way to protect children from the supposed negative effects of television and other mass media. Innoculatory approaches of this type emerged early in discussions about the importance of media literacy education in a digital age. Hopefully, as advocated by Masterman (1993) and as seen in the last decade of the 20th Century, the popularity of protectionist approaches to media literacy education will succumb to more critical approaches.

«Media literacy», or better yet, «literacy» (without qualification) should address all aspects, objectives, content, contexts and implications related to the presence and importance of media in our society. In a way, we are only trying to revive some of the key critical approaches to media education for the «old» media and apply

them again to «new» media. According to Masterman (1993), alll media are constructions that represent beliefs, values, and biases that subsequently influence their reception. As such, new media, such as the Internet, social networks, video games and so on could be seen as educational agents. Along these lines, it is appropriate for critical media literacy to address the major ideological and economic interests around ICTs and to support the critically analysis of the political economies of media business and the role of audiences as «prosumers». This can be instructive in ways that avoid the moral panics of protectionist and innoculatory versions of media education that were promoted in the past.

The five basic skills for media and information literacy that were recently identified by UNESCO (understanding, critical thinking, creativity, cultural awareness and citizenship) may be worthy heirs to further the traditions of critical media literacy from the mass media era of the last century. These skills diverge significantly from the narrow focus on «information processing and digital competencies» to embrace the relevant skills related to the critical skills necessary for competence in social, civic, cultural and artistic endeavors. It is becoming increasingly apparent that although information processing and digital competencies are inextricably linked to media literacy, they are, at best, a threshold with limited uses for broader fluency in diverse social contexts. In short, we see two risks with the current rush to integrate media literacy education into public education by limiting the complex subject of literacy to a narrow set of skills that: 1) reduce media education to the development of digital competencies; and 2) to limit digital competencies to its most technical dimension by focusing on the narrow expertise needed to navigate hardware and software. Curriculum integration strategies of this type exclude the necessary critical approaches that have long been used to define the social uses and benefits of literacy.

Perhaps the haptic pleasure of ICTs and our multiple digital devices divert us from critical contexts and lead us to a more applied technological and narrative approach. Perhaps the brilliance and fascination with new media prevent us from seeing the end goal of personal development, a goal shared by both media education and general education. Perhaps the expectations created by technological discourses about the way that ICTs can solve social problems require more dymystification before the integration of critical approaches can be seriously considered. Perhaps in our neoliberal society, market models will remain focused on generating capital and consumption, thus subsuming media literacy education under the banner of applied education and free market discourses. Given these scenarios, it seems more necessary than ever to focus on the most critical and ideological aims, purposes and approaches to media education in the service of both media literacy and digital competency in a global, multicultural world.

References

Aparici, R. (Coord.) (1996). La revolución de los medios audiovisuales: educación y nuevas tecnologías: Madrid. De la Torre.

Buckingham, D. (2003). Media Education: Literacy, Learning, and Contemporary Culture. Cambridge/Oxford: Polity Press-Blackwell Publishing.

Buckingham, D. (2011). Media Literacy: New Directions or Losing our Way? Manifesto for Media Education Symposium. London: Royal Institute of British Architects (10-06-2011).

Cope, B. & Kalantzis, M. (Eds.). (2000). Multiliteracies: Literacy Learning and the Design of Social Futures. London: Routledge.

Cope, B. & Kalantzis, M. (2009). Multiliteracies: New Literacies, New Learning. Pedagogies: An International Journal, 4, 3; 164-195.

Dussel, I. (2010). Los nuevos alfabetismos en el siglo XXI: Desafíos para la escuela. (www.virtualeduca.-info/Documentos/veBA09%20 confDussel.pdf) (29-05-2011)

Gilster, P. (1997). Digital Literacy. New York: Wiley & Sons, Inc.

Grizzle, A. (2011). Media & Information Literacy: The UNESCO Perspective. In School 2.0. A global perspective. The Journal of Media Literacy. 57; 1-2. (www.journalofmedialiteracy.org/index.php/current-issue/133-media-a-information-literacy-the-unesco-perspective) (29-05-2011).

Gutiérrez, A. (2003). Alfabetización digital: Algo más que ratones y teclas. Barcelona: Gedisa.

Gutiérrez, A. (2008). Educar para los medios en la era digital / Media education in the digital age. Comunicar, 31, XVI; 451-456.

Jenkins, H. & al. (2006). Confronting the Challenges of Participatory Culture: Media Education for the 21st Century. (www.newmedialiteracies.org/files/working/NMLWhitePaper.pdf) (29-06-2011).

Kress, G. (2000). Multimodality. In Cope, B. & Kalantzis, M. (Eds). Multiliteracies: Literacy Learning and the Design of Social Futures. London: Routledge.

Masterman, L. (1985). Teaching the Media. London: Comedia Pub. Group.

Robison, A. (2010). New Media Literacies by Design. In Tyner, K. (Ed.). Media Literacy. New Agendas in Communication. New York & London: Routledge.

The New Media Consortium (Ed.) (2005): A Global Imperative. The Report of the 21st Century Literacy Summit. NMC. (California).

Tyner, K. (1998). Literacy in a Digital World: Teaching and Learning in the Age of Information. New Jersey: Lawrence Erlbaum and Associates.

Tyner, K. (Ed.) (2010). Media Literacy. New Agendas in Communication. New York & London: Routledge.

UNESCO (1970). La alfabetización funcional. Cómo y por qué. Paris: Unesco (COM.70/11./31).

UNESCO (Ed.) (1986). Revised Recomendations Concerning the International Standardization of Educational Statistics. UNESCO's Standard-setting Instruments, V3 B4. Paris.

UNESCO (2008). Teacher Training Curricula for Media and information Literacy. Report of the International Expert Group Meeting. Paris: International UNESCO. (http://portal.unesco.org/ci/fr/files/27508/12212271723-Teacher-Training Curriculum for MIL - final report.doc/Teacher-

Training%2BCurriculum%2Bfor%2BMIL%2B-%2Bfinal%2Breport.doc (29-06-2011).

VARIOUS (1989). Media Literacy. Resource Guide. Ontario: Ministry of Education. Queen's Printer.

VARIOUS (2007). La educación en medios en Europa. Comunicar, 28.

VARIOUS (2009). Políticas de educación en medios: aportaciones y desafíos mundiales / Mapping Media Education Policies In The World. Comunicar, 32.

DOI: 10.3916/C38-2011-02-03