## Media education research

# Multidisciplinary contributes and development perspectives

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BSTRACT

The primary objective of this article is to present a picture of Media and Information and Communication Technologies as multidisciplinary educational tools by focusing on the epistemological research issues in this area. To this end, the article identifies the processes of social change triggered by Media and ITC and the pedagogical and cultural paradigms involved in the development of innovation in education and training.

**Keywords:** Media; Education; ICT; e-Learning.

### Research areas and cultural processes

Some years ago, in a monothematic issue of *Studium Educationis*, the author of the present article (Galliani, 2002) rather exhaustively described the lines of educational research — aimed at linking theoretical reflection to on-site experience and to teaching methodology based on a laboratory approach — and the perspectives of pedagogical and didactic schools of thought and action which have developed in Italy from the 50s onwards.

Shortly afterwards, a survey was conducted following the lines of research in Italian universities in collaboration with Laura Messina (Galliani, 2007), taking into consideration the scientific production (volumes and journals) published respectively in the last 12 and 7 years on the *relationships between media*, *education and training*. I specifically refer to this survey in order to summarize, without any pretence of completeness (Rivoltella, 2005), some approaches of educational research to media and technologies, referable to seven areas: pedagogical, sociological, psychological, semiological, philosophical-political, technological and economical.

Pedagogical area — articulated in its principal components: theoretical-methodological reflection concerning education to media; experimental study of learning with the media; and didactic research on face-to-face and distance teaching processes through the media — is centred upon «educational communication technologies» and «processes» of logical and symbolic production/organization of multimedia texts (Galliani, 1979) and their active/interactive-participatory reception/interpretation and social functionalization in shared projects and values.

Sociological area — primarily interested in the study of new media culture (Anceschi, 1989), with its framed, close-up and virtual gaze (Lévy, 1997) which make up the «second reality», parallel and interwoven with real world experiences and attentive to media effects upon people (McQuail, 1983) and the power exercised in society (Chomsky, 1991) — is centred upon media communication actors (Mattelart, 1991; Morcellini, 1994): the producers-spreaders of cultural objects as facts that determine our place in the world (Martelli, 1996) and give shape to our image of the world (Silverstone, 1999).

Psychological area — mainly addressed to the study of knowledge and learning processes involved in visual, audiovisual, multimedia and telematic communication (Riva, 2004) with different perceptive, sensorial, cognitive and emotional functionalities (Vygotskij, 1962; 1978) — is centred upon the evolution of media conceptions as learning tools (behaviourism: Skinner, 1954), as symbolic systems (cognitivism: Olson & Bruner, 1973; Salomon, 1979), and as social mediation tools (socioculturalism: Cole & Engeström, 1993), thus summarizing processes of semiosis, cognition and participation in social practices (Messina, 2002).

Semiological area — oriented towards the study of the languages of image and multimedia textuality: analogical, digital, interactive (off and on line) (Manovich, 2001), in Morris's distinction between syntactic, semantic and pragmatics (Grandi, 1992) — is focused upon the «mise-en-discourse» (Eco, 1975) and «mise-en-scène» processes (Wolf, 1991) peculiar to the non verbal languages (kinetics, musical, artistic) and to the passage from linear textuality to hypertextuality (Landow, 1992; Ricciardi, 1994) and from the intransitivity of the *old* mass media (Bettetini, 1984) to the transitive technology of the personal *new* media (Jacquinot, 2002).

Philosophical/political area — primarily interested in the ethic issue of the media (Lima & Cinque, 2004) and in the relationship between democracy and information politics (Rifkin, 2000) and between privacy and systems of control (Carlini, 1996; Lyon, 1994; 2001) — on one hand, is focused upon the self-regulation codes of producers and the professional ethics of communication experts (e.g. Charter of Treviso), paying special attention to minors and their educative safeguarding (Self-regulation Code: Internet and Minors), and on the other, the focus shifts to the personal right of free expression against each mass-media homologation process (Losito, 2002) and individual and social control for business or political ends (Levy, 2001).

Technological area — on one hand, configured by the development of electronics and telecommunications (computer and web) and on the other, by audiovisual and informatics production (Castells, 2001) — is centred upon digital convergence (Jenkins, 2006), acutely modifying media specificity (Guidolin, 2005) and their contents through a functional hybridizing of different technical supports and a content compatibility with the diverse formats (multimediality) and the various media (multichannelling), thus favouring social processes of personalization, communication and learning using web 2.0 (Bonaiuti, 2006).

Economic area — after the bubble of the New Economy (Mandel, 2000) that confirmed the power of its three basic elements (knowledge as merchandise, digitalization of information and web effect) in the passage to «Third Internet» (Carlini, 2002), or more specifically, to a variety of networks, wireless and non, specialized in different pay services and contents — carves out a significant market niche for educational contents aimed at both entertainment, and educational, vocational, higher and lifelong training (learning objects: Petrucco, 2006). This approach is also centred upon the identification/application of pedagogical criteria essential for products planning, realization and use and of indicators for quality evaluation (Galliani & Messina, 2003).

Apart from the methodological and content specificity of the different areas of research, it is also possible to identify an educative convergence on three categories of *media processes* referring to knowledge and culture: processes of *production/reproduction, transmission/communication*, and *acquisition/construction*.

The production/reproduction processes of knowledge and culture — meant as symbolic contexts and knowledge organizable into ontologies of scientific domain (Paparella, 2007) — create their media reality in a self-referential way and they determine through industrial culture — (shows, exhibitions, conferences, fairs, markets, etc. aimed at content marketing) — what is relevant and choose what is information and what has to be consolidated and developed, thus establishing new cultural objects through which meaning and sense are reconstructed. Being media primary and secondary socialization agents (Thompson, 1995), they thus contribute to individual

(personality development) and social (common rules and values construction) educative *imprinting*. The great flexibility of technology and information system creates a new situation of Social Network that stands firm in the disintegration of social relationships, hitherto guaranteed by the political and institutional networks and by their solidarity agencies (Touraine, 2005).

The *transmission/communication* processes of knowledge and culture — by means of digital, visual, audiovisual, informatics and telematic technologies — include the distribution of contents through multichannel media systems (radio, television, newspapers, internet, new media, but also off-line publishing) as well as the prearrangement of communicative environments (portals, sites, platforms) and of formative processes by individuals, or more often by institutions, bodies and agencies (e-Learning) (Rheingold, 1993). Programmes and schedules, which were once safe gate-keeping categories of reality contents as well as causal attributions and ethical evaluation, increasingly intersect and are put to test by the freedom of the network community (Formenti, 2000), its blogs and the learning and practice communities (Wenger, 1998).

The acquisition/construction processes of knowledge and culture — in their different formal, non formal, informal contexts and different environments of social communication — give centrality to the cognitive and emotional structures and processes activated by those subjects which are not only receivers-users, but also actors operationally engaged in the interpretation/negotiation of meanings. The recent figure of the late 20th century prosumer, able to elaborate media texts or interact with them, is changing with web 2.0 (Caron & Caronia, 2005) into a true individual and/or community author of discourses and practices, thus contending with the risk that the media can determine not only the cultural contents, but also the forms of knowledge (such as formatting of decoding) and spaces of global significance of the world (and so the critical interpretation) (Castells, 1996).

From these three interdisciplinary issues of media processes, it is possible to start afresh with new research proposals, exploring the paths of a territory which is continuously modified by psycho-technological hybridization and solely marked in traditional research by safe mono-disciplinary highways crossing through known landscapes.

#### Media, technologies and social changes

The 8<sup>th</sup> National Report on child and adolescent conditions made by Eurispes is entitled: *I figli padroni (Tyrannical Kids*). In the *Youth and their models* section, a scenario from 1991 is outlined by Gianmaria Fara: «Once the great ideologies

and modernist subcultures have fallen, media values and pseudo-values will spread weakening ethic education, causing new sources of unrest among adolescents and young people, imposing the difficult and stressful search for a new personal and social identity. Signs of a diverse sense searching of the new generation can be noticed in those who are seeking a sense of direction to rediscover a system of values from which to draw reference points and stability in the face of the complexity of a post-modern society, which obliges these individuals to make a continuous personal elaboration» (Fara, 2008, p. 59).

Is this a scenario of 1991 or from today? Where 23% of children between 12 and 19 years want to be stars and 16% football players for the Italian national team, and Tv programmes such as «Amici» (Friends) by Maria De Filippi is generally considered a positive programme from an educative point of view. It is true that, apart from the heroes (showgirls and football players), there are the anti-heroes and the thousands of "tribes" (Punkbestia, No Global, Transgressive, New green, Teocon, Papa boys, Rasper, etc.), and there is Harry Potter which arrives in the bookshops and at the cinema reviving the tale of the good defeating the evil. However only 26% of children feel comfortable with themselves, and not even their family, friends, a good job or "doing what you want" can make them feel important. It is only a question of money. It would be rhetoric for every researcher, ethically inspired, to ask himself whether the model introjected into daily behaviour pertains to young people or to adults.

The media and information technologies have innervated social transformation, and children, adolescents and teenagers, as they are «digital natives» (Prensky, 2001), are able to make full use of the great informative and technological resources in continuous evolution to increase their capacity of knowledge, social connection and creative expression. New cognitive and emotional profiles emerge by this *Screen Generation* (Rivoltella, 2006), which is characterized by total sensorial immersion, both because visual thoughts translate ideas into object actions through interface devices, and because multitasking skills of controlling many channels at the same time allow for rapid passages, integrative processes and, therefore, original learning paths (Mantovani & Ferri, 2008).

It is the MP3 and iPOD generation, of legally downloading songs and music as well as peer to peer file sharing, of the beloved mobile phone (children 55% and adolescents 98% with the popular use of YouTube and MySpace and directly purchasing accessories and Vas), of adventure-sport-fighting video games and the relative Sony-Microsoft-Nintendo playstations (8 million players from 4 to 17 years of age). It is still however the generation of films and cartoons (preferably DVDs), and above all of Tv (78.4% children and 87% adolescents watch it between one to five hours a day, while 48.2% children and 85% adolescents use Internet). Children and adolescents have very clear ideas about why they watch Tv and manage the programming for

minors by making autonomous choices ("x-rated" accepted by 68% adolescents and ignored by 51% children).

The media world intercepts the authentic and immediate needs of children and adolescents for: fantasy, imagination, adventure, sentiment, amusement, play, comedy, information *with the old media*, as well as their need for peer recognizability; immediate communication of feelings, emotions, thoughts; research and creation of identity to tackle maladjustment, triggered by the difficult task of development, *with the new media*.

Here then are the risks. Because this is also the YouTube generation of exhibitionism and cyber-bullying such as on line child pornography, that shape media as "abusing subjects" for their pervasiveness and intrusion.

The «y generation» — termed by the daily newspaper *USA Today*, or «technosexual» according to the Calvin Klein perfume advert — could symbolically become an "abused subject".

Apart from the necessary self-regulatory codes for public and private broadcasting enterprises and ethical codes for journalists and producers, the political question arises, not only in our Country, on the limits of the right to inform and to be informed compared with the protection and safety of children and adolescents (the so called minors).

We could reduce these risks and consider only the benefits of the media, however, we cannot blame the facts by prohibiting the use of the mobile phone by law, when "intimate photos" are exchanged like stickers! The media are not "bad company" for children and teenagers who are mostly aware of the risks they are running. Perhaps the problem is the unbearable "digital divide" that separates the adults (mainly parents, teachers and educators) from the adolescents. We are, to a large extent, "digital immigrants" with different cultures, different languages and different tools. From the need to bridge the gap between youth, parents and teachers *The Meaning of Media Practice*, SIREM's first national research was born (presented in this journal by P.C. Rivoltella).

In fact (according to the latest survey entitle *Observatory of Media Contents* by Nielsen), the difference between media consumption (television, cinema, music, theatre, books, etc.) and use of technological tools (computer, internet, mobile, etc.) is delineated by user culture, adolescents, teenagers and adults alike, or rather by the

In the above mentioned case, the company used a community of 5000 young people with the purpose of studying their needs and ways of communicating, and discovered that technology and sexuality are essential factors of socialization, therefore combining them sustains that media communication, producing only virtual sex, offers the possibility of daring, without running any real or psychological risks. By buying a Shyno t-shirt, with a nick-name and number written on it, you receive a card with a password. If you then send a sms to the Shyno service centre, the server links the code of the t-shirt to the mobile phone. In this way whoever (boy or girl) is attracted by the "content" of the t-shirt can digit the code on the mobile phone, sending a sms, mms or video message strictly anonymous. Besides, virtual sex (the greatest success of Internet!) has the advantage of free accessibility, isolation without danger, anonymity also of the other (male, female, gay and transgender), availability of different formats and media, and fantasy in self or others reification.

formal and informal learning by means they acquire technical as well as cognitive and ethical competencies (Cartelli, 2008).

The digital gap is steadily moving from access to the conscious use of media and technologies, clarifying the intervention of media education beyond the technological dimension that has distorted the digital literacy making it a simple acquisition of the so-called *European Computer Driving Licence* (ECDL). Digital literacy is an educative path also promoted at European level (Perez Tornero, 2004), that proposes itself not only in the continuity with the outline of Unesco on Media Education (Unesco, 2002) but also with pedagogical paradigms and didactic practices elaborated over the last twenty years of the 20th century, when the *multimediality* and the *interactivity* (Galliani, 1985) made the acquisition of new knowledge necessary in order to identify, select, access, conduct, integrate, analyze and evaluate information and to create/produce new information communicating with others (Costa, 1995; Galliani, 1999).

Two sectors call out for research addressed towards sustaining educative innovation: Kid Tv (2nd position in the European audiovisual market), pedagogically designed to render infants, school kids, young children and preadolescents active through 13 satellite channels (29% use) or digital Tv (26%); and 9 on demand packets offered by IpTv of Alice, Fastweb and Tiscali (8%), adding up to 63% of the over 6 million young users who own a television set at home. Compared to traditional television that proposes "intransitive" products, modern television facilitates interactive, involved, and participatory behaviours through programmes that stimulate cognitive, playful, experiential, reflective and interpretative activities. Besides multichanelling which focuses upon digital Tv, multimediality centred around the Internet (second sector of research) is offered with an even wider range of self-centred products, reaching 60% of Italian homes and is used by one child in five. Compared to the most visited sites (in order: search engines, on line newspapers, instant messages, forums/blogs, generated content such as YouTube, peer to peer, Wiki, chat, social networks such as Facebook), children who use Internet for personal growth are those who are more culturally prepared and are also familiar with its contents. Welcome therefore to research on Digital Competence Assessment (Calvani et al., 2008), especially if it is able to guide children and young people down pedagogical and didactic paths to generate ethic-social dimensions of digital competencies and not just technological or cognitive skills.

New cultural and pedagogic paradigms for media education

SIREM cannot set out on its enterprise without taking into account the consequences caused by the advent of new media or better still by the digital convergence

of information and communication technologies and the analogical simulation of their social practices. In other words, it means to overcome the historically dichotomous paths or in any case distinguished paths in academic theorization (Rivoltella, 2001; Calvani, 2007), and in formative practices, between media and technologies or between media education, on one hand, and new didactic technologies, on the other, called teaching and learning technologies in higher education curricula. Right from the start (the 60s/70s: Flores D'Arcais, 1963; Dieuzéide, 1965; Lefranc, 1965; Mialaret, 1964; Tardy, 1964) and then with the historic issue of *Communications* by Jacquinot (1981) Apprendre des médias, the distinction between «education to the media» and «education with the media» is posed, considering them alternatively as study *subjects* or study *tools*, referring to two cultural paradigms: the *semiologi*cal one that focuses upon the knowledge of languages (cinematographic, television, audiovisual and multimedia) and their values/meanings/sense (informative, social and aesthetical), and the technological one that mainly concentrates upon different techniques (graphics, photographic, cinematographic, video and audiovisual) in the teaching-learning processes of disciplinary contents.

With the onset of the computer and informatics, the technological-functionalist paradigm is consolidated compared to the semiological-social one, but *interactivity* and *hypertextuality* have opened up towards a third *pedagogical-strategic* paradigm which centralizes upon *educative communication as an authorial, collaborative and social practice*. The new media and Internet have accomplished this process by opening formal contexts of didactic-centred communication to anthropocentric contexts of multimedia consumption, social integration and virtual simulation.

Expressive *multimediality*, technological *interactivity* and social *virtuality* demand a new cultural and pedagogical paradigm in order to understand and govern the changes triggered in the educational *object*, in the training *context* and in the educational *subject* (Galliani, 2004a).

In this perspective:

- the multi-linguistic representation of reality, by means of scientific-disciplinary learning objects/contents (Galliani, 1989), requires that processes and paths of formal education be implemented by a new multimedia production (not only written) of knowledge and culture;
- the relational construction of knowledge, developed by man-media-network empiric interactivity (Trentin, 2004), requires that the trans-formative action of the social context and its free or organized communities be recognized in the processes and paths of life-long learning;
- empowerment of the body (Capucci, 1994) and mind (de Kerckhove, 1991; Mantovani, 1995) through techno-symbolic amplifications, sensorial prosthesis and technological grafting, multiple identities peculiar to virtuality and its space-time

"simul-action" processes — requires that a conscious individual and collective steering of artificial shaping of personality be prefigured in education.

Taking into consideration the educative finality of the media research and entailing processes, three categories of *formative actions* can be highlighted which are implemented in formal, non formal and informal contexts, according to the importance given in the study: to the meaning-sense of *information* in media and multimedia texts; to the use of the *media* and to new cultures that determine their consumption by different public; to the *strategies* of individual development and social citizenship.

In any case, the *formative action*, meant as *communicative action* and as *social action*, produces educative practices oriented towards motivating, directing and optimizing the *learning processes of the media*, with the media and through the media. In fact, the pedagogical *vision* focuses upon the relationship between *communication*, with its representation-symbolization processes of natural, human and social realities, and *learning* with its development processes of specific cognitive-emotional aptitudes and expressive and relational skills-competencies.

The first area of formative actions deals with media and multimedia texts as new objects of disciplinary and transdisciplinary education to be investigated in their semiotic components of sensorial-linguistic and technological integration-interaction between word, sound and images and in their original representational forms of reality installing values in informative and narrative texts, exercising powers of meaning and cognitive-emotional-playful-aesthetic seduction. For this reason curricular paths of education to media are necessary, articulated in continuity (Galliani, 1988; 1994) through many forms of readings — syntactic (codes and narrative structures), semantics (reality representations and content analysis), pragmatic (user ideologies), strategic or of cultural communication (belonging of subjects, subcultures and mediacultures) — and of didactic writings (imitative, projective, creative, collaborative) (Messina, 2004; 2007), balanced between scholastic experiences and experiences in society, in direct contact with communication, where contents are generated by the users and shared in a common on line space.

The second area of formative actions regards the educative use of media as compared to social effects determined upon different public (consumption analysis), with special attention towards developing subjects (starting from infancy). It deals with the transition from a concept of the media as "observing systems" of reality to that of "observed systems", and therefore employed as educational tools (Galliani, 2004b) in symbolic and technological mediations (with direct and indirect, immediate and differed, intentional or unintentional effects). Using the media and technologies for studying and for individual and collaborative learning has triggered communicative innovations in formal education systems (school, university, vocational training) as well as in transferring education in the media and in Internet through e-Learning. A

second pedagogic path, now centuries old, is that of media programmes (cartoons, films, radio and television broadcasts, Tv, software, video games, etc.) "educationally oriented" towards children, teenagers, young people and adults. In this area *readings* of production and consumption contexts have also imposed as well as linked *writings* by group-media and individuals using digital technologies (cameras, video phones, video cameras, digital editing, electronic publications, etc.) aimed at social communication (e.g., forums, blogs and social networks in web 2.0).

The third area of formative actions concerns pedagogic strategies of individual development and social citizenship through the creation of critical thought (rational, reflective and in action) and of ethical thought (free, democratic and participatory). This means to leave behind the ideological approach of "social reproduction" adopted by the media and the moralistic practices of "liberating exorcism" (from film discussions to talk and reality shows), and to construct with research-action methods the scientific, didactic and technical tools (Galliani, 1996) to interpret the (today) participated processes of media creation of the symbolic universe. The latter, with its iconic and eidetic imagery, influences the real universe of social relationships wherein political, economical and ethical choices are made by individuals, groups and institutions within an intercultural and global dimension.

The role of media communication in the construction of *social representations*—that influences cognitive processes and behavioural practices (opinions, attitudes, stereotypes)—becomes fundamental because it is the «symbolic system» that anticipates, interprets, categorizes and then justifies and integrates educational action with social action (Galliani & Costa, 2000).

The third *pedagogic-strategic paradigm* — that builds educative communication as an authorial, collaborative and social practice — poses another condition to the research. In fact research on media education must be integrated with intercultural education as a pedagogic substratum, in order to establish a connection between "other" cultures, with their analogical components, and "our" culture with its digital components, towards a mediated intercultural communication (Galliani, 1996) open to "beyond" and "elsewhere". This "passage" of culture and identity is increasingly more frequent on the web during the construction of educative communication as authorial, collaborative and social practice, where the electronic Self of "egocentric contraction" concentrated on one's own interiority (iPod/iPhone) enters in contact with the worldwide phenomenon "You to You" (YouTube: a hundred million of life fragments, often bizarre and paradoxical, of which 65,000 a day are telescopically enlarged). The POD metaphor is that of mobility and walking, of the «migrant thought» — of which Franca Pinto Minerva (2002) admirably talks about — willing to reach beyond the limits of one's own communicating, of one's own way of conceptualizing reality, and of feeling and experiencing emotions, crossing towards unknown regions and discovering other ideas, words, further images and visions of the world.

Therefore, media education can be considered as a means of achieving and developing a "migrant thought", using the main road of diversity of the media and symbolic alphabet with which to read-write-understand the thousands and one differences of the real universe, sharing "other people's views".

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