Education Overload.
From Total Surround to Pattern Recognition.
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Contents

Rumors/Editorials ............... 11

A New Kind of Mind: What’s to Educate? (D. de Kerckhove / E. McLuhan) .... 13
Education Overload. McLuhan and the Quest for New Patterns in the Era of Total Surround (M. Ciastellardi) ....... 19

Messages/Papers ................. 25

A Historical View of Education from the Perspective of Marshall McLuhan and Media Ecology (A. Kuskis, R. K. Logan) ....... 27
Educational Reform and the Formalization of the Field of Media Ecology (L. Strate) ....... 41
Education as a Dying and Outdated System? Media Literacies, Networks, and Social Behavior: toward a New Learning Potential (M. Pireddu) ........ 51
INTERTEXT: Why CNN and Fox Wrongly Reported US Supreme Court Health Care Ruling: A McLuhanesque Analysis (P. Levinson) ....... 67
Shaping Perception and Cognition: McLuhan’s Grammatical Study of Media (I. Machado) ....... 69
Project 69: Retrieving the ‘Spirit’ of McLuhan’s Pedagogic Enterprise (A. Chrystall) ....... 81
The Echoes of McLuhan: Media Ecology, Semiotics and Interfaces (Carlos A. Scolari) ....... 105
E-learning. A New Environment for Engagement (R. K. Logan, M. Olesen) ....... 117
The theme of education is today more than ever central in a society that is grounded in the diffusion and circulation of information and that should define its cultural model on mutual exchange and the broad dissemination of knowledge. If education has over the years defined an impressive amount of possible meanings, boundaries, opportunities, and assets, in the era of complexity it is more difficult to delineate an extensive (and effective) frame to conceptualize it, if not by the means of multiple, overlapping layers of characterization.

In 2002, the United Nations General Assembly announced that it would begin the Decade of Education for Sustainable Development: a ten-year period from 2005 to 2014 in which it is increasingly evident that education, culture, and the way children are reared form the keys for peaceful co-existence and a sustainable future. Nowadays, from almost infancy, children grow up in a new culture of communicative objects and immersive interfaces. The ‘book-mentality’ was deconstructed in the 50s by the television frame; it was rediscovered in the 90s as a hyper-textual mind and, today, it is conceived as a networked consciousness enriched by electronic extensions. What has changed is not only the concept of linearity, but the mindset based on Auctoritas which has been secularized by the writing literacy, by the classroom environment, and by narrow networks. As McLuhan observed:

> It’s natural today to speak of ‘audio-visual aids’ to teaching, for we still think of the book as norm, of other media as incidental. We also think of the new media (press, radio, TV) as mass media and think of the book as an individualistic form — individualistic because it isolated the reader in silence and helped create the Western ‘I.’ Yet it was the first product of mass production. (McLuhan, 1960: 1)

Beyond any reflection on social and economic changes, it is important to note that the educational system has had to cope with these changes in habits and cultural assets. New codes of comprehension and expression have been developed. The television, the web, and social media are just some of the supports that have deconstructed and redefined the educational policies of those environments designated to this function. The traditional educational units, i.e., school and family, were key hubs for the construction of educational patterns, but we should consider that new forms of self-learning, new rites of passage, and new models of cultural reference continue redefining themselves.

Nowadays, most of the concerns for defining educational patterns are related to the fact that we are facing a situation of ‘information overload’, where mass communication, big data,
and an indiscriminate proliferation of information constitute the principal layer of pedagogical experiences and mind-feeding. If some aspects of this overload reflect the contemporary potentiality of new devices and new infrastructures, according to Ann Blair, we cannot consider this phenomenon to be one that is completely new:

Information overload was experienced long before the appearance of today's digital gadgets. Complaints about ‘too many books’ echo across the centuries, from when books were papyrus rolls, parchment manuscripts, or hand printed. The complaint is also common in other cultural traditions, like the Chinese, built on textual accumulation around a canon of classics. Writing was very likely the first culprit, making possible the accumulation of texts beyond what a single mind could master, even a mind trained to memorize Homer or biblical texts. Writing on durable surfaces (like parchment or paper), with a high level of redundancy (when multiple copies were produced, whether manuscript or printed), also made it possible to recover texts after they had fallen into oblivion, so that being in continuous active use was no longer essential to a text’s transmission, as is the case in an oral culture. (Blair, 2012: webnote)

In this sense, what really must be taken into account is not the amount of data and information produced and distributed: it is more relevant to focus on the numerous ways all of these possible ‘chunks’ of knowledge and expertise are absorbed, utilized, reproduced, and ‘remediated’ by people.

In this situation of ‘education overload’, in which people suffer limits and profit benefits of a ‘total surround’ of information and knowledge, the environment outside of schools has become far richer than that inside of schools, and virtual environment offers a multifaceted and complex dimension for learning practices and experiencing different models of knowledge sharing. In this scenario, traditional pedagogies no longer suffice for a world that calls for new visions, tools, and skills. The primary need is the recognition of flexible and adequate patterns for educative purposes.

The most reliable effort is to argue for and distinguish practices and theories that show the extreme relief of education in all aspects of culture, economy, science, and everyday life activities, moving towards a pedagogical project grounded on several important considerations:

- The definition of a learning environment, in terms of the real and consistent educative elements and processes that can be offered. The challenge is to define and to manage hybrid factors that will characterize situations, places, and experiences that can be considered as learning environments. Schools, communities, virtual platforms, and social networks are a few examples of interchangeable and cross-bordering dimensions of environments for sustaining educational processes.
- The change of supports: virtual interfaces, digital media, books, and wearable devices can provide experiences, knowledge, and information, and they can deeply influence every pedagogical process.
- Comprehension and expression patterns: people moved from an oral tradition to a written culture; nowadays, electronic interfaces and modes of conceiving communication reframe their patterns of expression and analysis, crossing the key elements of language with textual dimensions.

In this quest for new patterns in total surround era, moving from the above considerations, one of the most resourceful authors is Marshall McLuhan. Education was one of the central concerns of McLuhan’s work. Janine Marchessault writes that McLuhan’s total body of work expresses «a
deeply and consistently pedagogical project» (Marchessault, 2008: 4). The two volumes Report on Project in Understanding New Media (1960), commissioned by the National Association of Educational Broadcasters, and The City as Classroom: Understanding Language and Media (1977), open a wide perspective on education, pedagogy, and media in the Electronic Era.

As Alex Kuskis (2011) has remarked, McLuhan’s ideas on education and learning were also proposed in lectures and writings, mainly during the 1950s, ’60s, and ’70s. He was defining a totally new approach:

Harshly critical of the ‘place-based, book-paced’ educational practices of the time, McLuhan offered a compelling vision of learning to replace lectures with active student participation, interaction and involvement, engaging learners in discovery learning, rather than pre-packaged teacher and textbook-delivered content to be regurgitated on tests. His vision of ‘classrooms without walls’ included a transition from hardware to software, redefinition of teacher roles, elimination of subjects, reform of assessment, and the use of instructional media, not just books. The curriculum would focus on media literacy and include the training of perception through figure/ground analysis and the inclusion of arts education. Noting the trend toward ‘learning a living’, the constant upgrading of knowledge and skills by professional workers, he anticipated today’s emphasis on lifelong learning and workplace training. (Kuskis, 2011: webnote)

The vision of McLuhan, as interpreted by others and by the means of his own various contributions, briefly anticipated not only the web-generation (and, previously, the electric-generation), but a culture of convergence education based on community participation, open environment, and the extension of communication:

The university and school of the future must be a means of total community participation, not in the consumption of available knowledge, but in the creation of completely unavailable insights. The overwhelming obstacle to such community participation in problem solving and research at the top levels, is the reluctance to admit, and to describe, in detail their difficulties and their ignorance. There is no kind of problem that baffles one or a dozen experts that cannot be solved at once by a million minds that are given a chance simultaneously to tackle a problem. (McLuhan, 1971: webnote).

In this sense, McLuhan not only anticipated the Internet, but the need of pattern recognition analysis for defining new ways of conceiving education and knowledge by means of electric technology:

The medium, or process, of our time, electric technology, is reshaping and restructuring patterns of social interdependence and every aspect of our personal life. It is forcing us to reconsider and re-evaluate practically every thought, every action, and every institution formerly taken for granted. Everything is changing: you, your family, your education, your neighborhood, your job, your government, your relation to the others. And they’re changing dramatically. (McLuhan & Fiore, 1967: 8)

The dimension of change is the first symptom illustrating the real need to recognize new patterns for facing the electric technology era. Not only has McLuhan foreseen the deep change in the social architectures, but he has also made explicit that media are not simple items to transmit knowledge and culture, but processes of our time. The electric technology enhances a change itself
in terms of new possibilities. It is not only a support: it is a process that extends the capacities of each individual and his/her relations with other individuals and with the environment.

If McLuhan’s writings and lectures on media anticipate the Internet, social media and global consciousness, his work on education and learning anticipates today’s use of instructional media, online, collaborative and experiential learning, constructivism, as well as lifelong learning and other current trends in education. He noted in 1967 that: «The little red schoolhouse is already well on its way toward becoming the little round schoolhouse», foreshadowing the arrival of the most powerful learning platform yet devised – the Internet. Traditional classrooms and the global village would give way to a global ‘classroom without walls’. (A. Kuskis, 2011: webnote)

The idea that education doesn’t have to be limited to classrooms was previously expressed by McLuhan exactly in terms of learning experiences (*mimesis* of the elders) and information overload (quantity of information conveyed by ‘press, magazines, film, TV, radio’).

Before the printing press, the young learned by listening, watching, doing. So, until recently, our own rural children learned the language and skills of their elders. Learning took place outside the classroom. Only those aiming at professional careers went to school at all. Today in our cities, most learning occurs outside the classroom. The sheer quantity of information conveyed by press-magazines-film-TV-radio far exceeds the quantity of information conveyed by school instruction and texts. This challenge has destroyed the monopoly of the book as a teaching aid and cracked the very walls of the classroom so suddenly that we’re confused, baffled. (McLuhan, 1960: 1)

What changed in the era of instant communication is not only the overall model for conceiving the relation between educator and disciple. What changed has to be analyzed by the matter of new supports, the unlimited possibilities of an extended mind sustained by global information and a holistic ‘always on’ systemic knowledge. There is neither a monolithic system nor a monopolistic model. As we remarked, the new media defined original codes and different languages in educative practices and thereby changed the relation between *auctoritas* and audience.

Today we’re beginning to realize that the new media aren’t just mechanical gimmicks for creating worlds of illusion, but new languages with new and unique powers of expression. Historically, the resources of English have been shaped and expressed in constantly new and changing ways. The printing press changed not only the quantity of writing but also the character of language and the relations between author and public. Radio, film, TV pushed written English toward the spontaneous shifts and freedom of the spoken idiom. They aided us in the recovery of intense awareness of facial language and bodily gesture. If these “mass media” should serve only to weaken or corrupt previously achieved levels of verbal and pictorial culture, it won’t be because there’s anything inherently wrong with them. It will be because we’ve failed to master them as new languages in time to assimilate them to our total cultural heritage. (McLuhan, 1960: 2)

The new possibilities introduced by the electric age offered an alternative to the top-down approach of traditional mass-education, fostering a complex but valuable scenario of uniqueness and diversity in education.
It is more difficult to provide uniqueness and diversity than it is to impose the uniform patterns of mass education; but it is such uniqueness and diversity that can be fostered under electric conditions as never before. (McLuhan, 1964: 316)

It is exactly in this scenario that traditional pedagogies no longer suffice for a world that calls for new visions, tools, and skills; without them, education risks an uncontrolled overload. Education has to move from the total surround of structured, pre-conceived, and fragmented data, continuously increasing, to the recognition of sustainable patterns where environment, social relations, broad networks and new media offer an innovative educational system. As McLuhan argued:

What is indicated for the new learning procedures is not the absorption of classified and fragmented data, but pattern recognition with all that that implies of grasping relationships. We are actually living out of paradox of having provided cities that are more potent teaching machine than our formal educational system. The environment itself has become richer. We seem to be approaching the age when we shall program the environment instead of the curriculum. (McLuhan, 2003: 53)

Starting from some of these considerations, and opening to a vision that moves from some of the most important positions of Media Ecology, the present issue of the International Journal of McLuhan Studies would offer an extended analysis of education based on many of McLuhan's relevant intuitions.

In the main section of the Journal, ‘Messages’, the first analysis about implications and the origins of education overload, is offered by Alex Kuskis and Bob Logan. Their study is based on the educational media of language and culture and reinterprets and expands some of McLuhan’s positions to offer an historical view of education. They draw the actual scenario, framing several passages of the culture of learning: from the oral tradition to online networks through the impact of the phonetic alphabet, the printing press, the industrial revolution and electric media. If the contribution of Kuskis and Logan is able to ground the question in an organic overview of the process that instituted paradigm changes in education, the study of Lance Strate restarts from a deep influence of McLuhan and Dewey to define the educational reform in the field of Media Ecology. Strate’s analysis moves from the revolution of printing, as a revolution in communication, to examine the changes produced by a visual organization and display of knowledge and by the culture of (electronic) media. If Strate shows what could be considered a Media Ecology education, the work of Mario Pireddu emphasizes the role of media literacies, networks, and social behavior to trigger new learning potential. Assuming important intuitions from McLuhan, Jenkins, and Wesch, he traces the possibilities offered by the new technologies and by the dynamics of a network society and participatory culture to delineate a digital media ecosystem as productive learning environment for students and teachers. After a very short and inspiring McLuhanesque analysis of ‘media miseducation’ by Paul Levinson, the journal presents the contribution of Irene Machado on McLuhan’s grammatical study of Media. In this essay, Machado reconsiders the topic of education (and McLuhan’s education project) by the cultural codes of electric information and the iconic languages that brought new challenges to perception and cognitive processes, necessitating new methodological approaches. The analysis of McLuhan’s pedagogic enterprise continues in with Andrew Chrystall’s essay. He makes use of archival material and some unpublished works to open a retrospective analysis of McLuhan’s early career as a teacher and his Report on Project in Understanding New Media. The echoes of McLuhan on the topic of education are successively discussed by Carlos Scolari in his contribution, which is focused on
Media Ecology, semiotics, and interfaces. Moving between the Empirical and the Critical School, Scolari traces a path from McLuhan to Barthes and from semiology to semiotics to conceive an ecology of media interfaces as the key concept of the decade for education. The last contribute of the section, by Bob Logan and Mogens Olesen, moves from the evolution of educational media and from the positions of Marshall McLuhan and Andy Clark to define a reliable framework to conceive e-learning activities.

The Journal offers also a section called ‘Second Orality’, that is to say, a space to present valuable papers, talks, and contributions accepted in seminars and conferences. In the present issue we offer two contributions. The first is by Mark Federman, ‘Why Johnny and Janey Can’t Read, and Why Mr. and Ms. Smith Can’t Teach: The challenge of education in a tumultuous time’, a provocative discussion on literacy (obsolescence) and the role of education. The second is by Jenna Sunkenberg, ‘Waking Up Narcissus’, and it explores the social implications of McLuhan’s interpretation of the Narcissus myth in relation to education.

Finally, the last section of the Journal offers the inspiring dialogue between Eric McLuhan and Peter Zhang on Eye and Ear: Musings on Media Ecology and an overview of the best submissions from the ‘Call for Covers’ we opened for the second Issue on Education Overload.

Enjoy the reading with the best wishes to recognize inspiring patterns...

Matteo Ciastellardi
Editorial Director

Short References


Webnotes