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Digital media and children age 0-6: a snapshot on Europe

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Abstract

Media socialization in preschool age presents an ever increasing phenomenon, which involves children from the first year of life with different intensity and in different ways. Digital natives, in fact, in contrast with the "Gutenberg" children, are naturally inclined to using new technologies and this inclination comes from the opportunity to live many and various experiences which also include the development of different brain structures. (Prensky 2001, Ferri 2011).
This contribution comes from the reflection on preschool socialization shared within the cycle of in-depth seminars "Media before school. An empirical reflexion on the socialization 0-6" organized by the Mediamonitor Minor Observatory, Sapienza University of Rome, Italy within the project Inf@nzia DIGI.Tales 3.6.
At the moment, American context appears to be the most researched one: here, the key findings from the main European research around the interaction of the "universe of minors" with technologies will be presented from a multidisciplinary point of view, which includes scientific areas which are necessarily related to this issue such as pedagogy, psychology and neuro-science.
The current research intends to contribute to a reconstruction of a map of experiences of international research aimed at delineating the status quo of the methods and key results, as well as of the priorities and best practices that can be transferred and applied to the Italian context.

Keywords: Digital media, preschool age, socialization, family

1. Introduction

The appearance of digital media has favored a complex reallocation of the entire media system, which is more and more characterized by the "multimedia convergence" that allows the flux of contents to transit different platforms, thus facilitating, among other things, a cooperation between different media. (Jenkins 2010; Corlianò 2010). Classic sociology tradition points out to the narrow relation between the technological innovation and the redefinition of the neurological, linguistic and interpretative processes of subjects (Ong, 1982, De Kerkhove, 2008). In the same way, the interpretation and multidisciplinary integration of classic theories of psychopedagogy (Piaget, 1967; Vigotsky, 1934; Bruner, 1993; Gardner, 1987) allow us to observe how digital technologies contribute to the development of an intelligence which is more and more capable of making a synthesis of visual, multimedia and network information.

The eternal dynamism and the progressive acceleration of the technological development can be a resource for the processes of learning/teaching which are also related to preschool children, whose socialization[2] and use of

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2 The term socialization refers to the group of processes developed by individuals during lifetime through continuous and different forms of interaction and socio-cultural and symbolic exchange that favor the gradual acquisition of minimal and indispensable communication competencies and capacities needed for living within a society with a certain culture and a high level of civilization with exchange forms

media is still scarcely researched on representative samples probably for ethical and methodological challenges: the involvement of a representative sample of subjects belonging to this age implies necessarily a mediation by parents. Despite this, it is useful to pay particular attention to the study of this age as children who are 3-6 years old are at the centre of a profound change: they are the privileged audience of marketing and advertising[3]; they start school by being already pre-socialized and with expectations and competencies that result from the consume of mainstream media, of new mobile devices (tablet and smart phone) and of the modalities of tactile interaction that result to be particularly attractive to them.

In order to explore potential and possible scenarios of this issue, which can be translated into research proposals, some surveys regularly undertaken by Istat, as well as some American and European surveys, will be considered. In the end, we will look at the Italian experimentation.

2. Methodology

The present contribution to the issue of digital socialization in preschool age takes into consideration certain analytical areas from which one can easily take out empirical scenarios that are useful to the Italian panorama and that are applicable to significantly representative samples.

On the conceptual plan, we will look at a descriptive presentation, as this is the first exploration of available data. The analysis, first of all, takes into account certain surveys of Istat (2010)[4] aimed in particular at families de facto: from them it is possible to make some useful remarks on the media habits of children 3-6 age. In relation to the use of media, the questions administered to about 2,200 children interviewed were related to the: reading and browsing of illustrated books (children 2-5 years old); consumption of radio, TV, video-games, computers (from 3 years on) use of Internet and cell-phones (from 6 years on).

Another attention is paid to the American context and in particular to the Kaiser Family Foundation study (Rideout V.J., Vanderwater E.A., Wartella E.A., 2003) related to the role of media in the life of infants and preschool children. The research questions (which were given to more than 1,000 parents of children of age from 6 months to 6 years) are focused on the support provided to children and on the time dedicated to them; on the social context in which the medium is used and on the rules of use established by the parents.

Within the European context, the EU Kids Online (Holloway, Green, and Livingstone, 2013) research is taken into consideration, which is a network that gathers around 400 surveys in 46 countries and which is focused on the advantages, risks, mediation strategies and political priorities to take into account in relation to the use of the Internet for children, especially those of 0-8 years old, as their online presence seems to have increased in the last 5 years (for example, think of their photos published online by the adults which already make a digital footprint of them)[5].

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proportional to age (Gallino, 2009). Social and symbolic interaction allow to individuals to develop a self-awareness, an identity and to be integrated continuously into the social context of referral by interiorizing the widely shared norms and values, which, among other things, help to satisfy the needs for belonging, cohesion and appreciation that are indispensable to the construction of one's identity (Besozzi, 2006).

3 Their future role of consumer and their influence on the family spending makes preschool children privileged audiences of consume and buying logics (McNeal 1999 e 2007; Gunter, Furnham 1998; Linn 2005; Schor 2005; Mayo, Nairn 2010; Ironico 2010).

4 The most interesting surveys in relation to this issue are substantially three (two 5-year surveys and one annual): one related to the media and extra-media practices (Cittadini e tempo libero); one related to the time committed to different activities (Uso del tempo) and another broader one that includes areas focusing on media consumption (Aspetti della vita quotidiana). This contribution is centred on this last survey.

5 EU Kids Online, among other things, is engaged in the updating of online results and of emerging questions such as: social networking, mobile telephone, platforms, privacy and protection of personal data, security and awareness raising in schools, literacy and digital citizenship, etc.

In the end, it is important, as already emphasized, to remind that a survey on the relationship between the minors 0-6 years old and the media must necessarily take into account the family mediation and its effects related to, for example, the development of a media diet that can condition the development of competencies (basic and transversal) and thus, also the process of construction and strengthening of personal identity of children. In this sense, it is assumed that, in a potential future reformulation of the research problem for the Italian context, an ethnographic approach and a cultural analysis can make a useful in-depth contribution to the analysis of the ways in which media habits of children are constructed within everyday and family contexts: close and direct study can explain easily certain possible regularities that emerge in some activities involving children (Van Maanen, 1979).

3. Findings

Even though methodological rigor was not verified in the above quoted surveys, in relation to the research objectives and methodologies it is useful to recall certain results which can make interesting starting points for broadening and applying this reflection to the Italian context.

In relation to the survey by Istat (2010) Aspects of everyday life, certain variables related to the media consumption by children 2-5 years old who read or browse books with images were analyzed (1,700 cases which refer to the population of more than 2.000.000 children): 7 out of 10 children read or browse fairy tale books; 6 out of 10 children read or browse stories and books about nature and animals; 4 out of 10 children browse didactic books. This gives us an idea on how familiar these young children (2-5 years old) are with reading. The tendency to read seems to diminish by the age of 6: in fact, the question on the reading of non-school books made to children from 6 years on makes us see how quite a relevant part of children of this age do not read non-school books. This is probably linked to the fact that with the enrollment to the primary school, the study of school books reduces the time that is available for reading other books. So, one can assume that exactly from this age on, the use of other media starts to be more consistent in relation to the use of books in the media diet of children.

As far as TV is concerned, the audience are children from 3 years on: around 6 per cent do not watch TV; 90% watch TV for more than 1 hour per day; 12,000 children watch TV for more than 10 hours per day; 1 500 000 children watch thematic TV channels.

In relation to the personal computer, its use was registered within the age 3-6 (around 1,740 respondents). Almost 22% of children of this age say to have used the PC in the last 3 months and in particular, 2.45% of them use the PC every day, while 10% uses it several times a week. We are talking about 500,000 children using PC in the last 3 months and around 300,000 using it at least several times a week. If we focus on the inclination of children to use the PC in relation to their age, we see that there are significant changes with age: in 2011, only 6 out of 100 children who are 3 years old used the PC, while 35 out of 100 children who are 6 years old did so too.

The survey takes also into account the video-games as it confronts the preference of children for them in relation to traditional games: 26% (around 603,000 children 3-6 years old) indicates the video-game and the computer as their favorite games. Obviously, traditional games still have a priority for most children. Also in this case, the inclination to play video-games changes with age: children who are 6 years old are much more inclined to play videogames that those of 3 years age.

The use of cell phones was surveyed only in relation to children who are 6 years old: the majority does not use it, while 15% (around 92,000 children) use the cell phone and even 5% have a personal one. Play is the second most common way of using the cell phones: 6 out of 100 children use cell phones for playing, for changing the sounds on them, for sending messages, for making photos, as a phone rubric or for listening to music. Further, 19% of six-years-olds (around 115,000) declared to use the Internet and around 62,000 of these children did so at least several times per week, which means often.

If we focus on the digital competencies, we note that: 60% of six-year-olds who used the Internet in the last 3 months know how to use a research engine and how to download texts, games, music, make online phone calls, send emails with attachments, write messages in a chat, etc.

Continuing the summary of research related to 0-6 year old children, it is interesting to summarize certain results related to the Kaiser Family Foundation (Rideout V.J., Vanderwater E.A., Wartella E.A., 2003) and the network EU Kids Online (Holloway, Green, and Livingstone, 2013).

These surveys show that children younger than 6 are also quite exposed to the solicitation from electronic media: they spend on average 2 hours per day with TV and video and start watching TV much earlier than it is recommended. Quite a consistent percentage of young children use digital media: 50% of children 4-6 years old have played video-games and 70% has used a personal computer. Two out of three children 0-6 years old has free access to TV for at least half of the time spent at home and one third has TV on during all the time spent at home. This last group of children, though, seems to be less inclined to reading and a bit slower to learn to read. These children's parents are generally inclined to considering media a useful instrument to the intellectual development of their children and this is probably related to the direct perception that they have of the quantity of time that their children pass with every medium. According to the EU Kids Online (Holloway, Green, and Livingstone, 2013), children below 9 perform different online activities (watch videos, play, search for information) to which they access through devices such as touch screen and smart phone that also allow them to also socialize with each other within the virtual worlds.

As the impact of media on cognitive, social and emotional development of children exists without any doubts, the survey points out to the necessity to research more in-depth certain questions such as: what effect do media have on the capacities of children to concentrate, as well as on their linguistic development and physical coordination? What effect does the multitasking have on what the child watches, reads and listens to? In which ways the interactive nature of media strengthens the visual-spatial abilities of children? What is the principal knowledge related to this age of children that those who work with media should take into account in order to favor positive effects of media on children?

According to the suggestions of these surveys, we could answer these questions through longitudinal surveys that track media habits of children and their families across certain periods of time and by integrating these surveys with contributions from medical area: the studies of the American Academy of Pediatrics (2011) invite, for example, to adopt a cautionary attitude toward the consumption of media devices in preschool age and recommend to limit or forbid the use of TV by children under 2 in order to leave them space to experience a first form of knowledge through the contact with the social reality and parents, which is fundamental for transversal competencies. Also, in relation to the video games, these studies indicate that there should be caution: on one side, it is considered that video games favor the development of control, but, at the same time, on the other side, they imply a loss of cognition of space and time and can create distortions in relation to the reality.

4. Discussion

A possible application and translation to the Italian context, from the solicitations offered by this first analysis of the panorama of international research on 0-6 years-olds is presented by the project proposal entitled Inf@nzia DIGI.tales 3.66. It was presented within the call Smart Cities and Communities and Social Innovation" promoted by MIUR and aimed at children 3-6 years old with the objective of renovating educational models of preschools through the design and application of educational projects that integrate different technologies. This proposal adopts two points of view. On one side, it is referred to the studies and methodological approach of Maria Montessori and Bruno Munari that values doing by children (manipulation), spontaneous exploration, and creation of digital stories

[6] The project INF@NZIA DIGI.tales 3.6 is born from the collaboration between four major Italian universities: Università degli Studi di Napoli "Federico II, "Sapienza" Università di Roma, Università degli Studi di Salerno, Università degli Studi di Trento, and four key Italian companies engaged in communications and new technologies sector: Engineering Ingegneria Informatica, Fastweb, Interactive Media e Consorzio iCampus.

(tales). On the other side, the research intends to introduce Media Education in preschools through the experimentation with educational solutions that apply the media education principles from learning by doing to the collaborative and cooperative learning aimed at children, teachers and families.

The objectives of the project are:

- Conceptualization, design and implementation of the Smart Learning & Teaching Environments in school;
- Creation of situations of learning and teaching related to the harmonious and holistic development of the youngest ones;
- Construction of laboratories in which children can experiment symbolic games through digital media.

The attention to the renovation of the educational intercourse of the child intersects with the project Inf@nzia DIGI.tales 3.6 through the valorization of the aspects of digitalization and consumption of cultural material and non-material goods on a certain territory (from the single resource of a museum to the thematic parks and to the entire city).

These research objectives are supported with the addition of other objectives aimed at improving the quality and accessibility of school services, facilitating activities of teaching personnel and facilitating the relationship school-family and parents, through the use of applicative and infrastructural resources mostly based on the Cloud paradigm.

This is a project whose objectives are still in the phase of co-construction and evaluation.

5. Conclusion

This first mapping of the relationship between minors and digital media related to the age 0-6 and constructed starting from certain surveys related to the American and European contexts, intends to be a theoretical-practical basis for delineating and structuring a research path on this issue that can be transferred and applied to the Italian context. The second phase of analysis forsees an ulterior research in relation to the context of application and its needs, as well as an ulterior theoretical and multidisciplinary intergation.

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