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Firenze University Press
www.fupress.com/me

OPEN ACCESS

Citation: Nardone, R. (2025). Digital media in 0-6: educational design between services and families. *Media Education* 16(1): 25-33. doi: 10.36253/me-17097

Received: December, 2024

Accepted: March, 2025

Published: May, 2025

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Data Availability Statement: All relevant data are within the paper and its Supporting Information files.

Competing Interests: The Author(s) declare(s) no conflict of interest.

Digital media in 0-6: educational design between services and families

Media digitali tra 0 e 6 anni: progettazione educativa tra servizi e famiglie

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Abstract. Digital environments, particularly touchscreen media, increasingly characterize children's everyday experiences, with children under three accessing apps, videos, and interactive content, especially in family settings. This creates an 'educational paradox': parents alarmed by 'moral panic' about digital media oppose tablets in educational contexts while using them in daily life with little critical-creative thinking – essentially as 'shut-up toys.' Moreover, connectivity in Italy has developed unevenly with significant regional differences, revealing a complex landscape of access and literacy inequalities across the country, particularly highlighted by the COVID-19 pandemic. This article examines how early childhood educational services play a central role in developing digital culture for children as a literacy right, through their capacity to mediate and familiarize children with complex and creative uses of technological tools in dialogue with other play, reading, and learning materials, and to guide families navigating contradictory approaches, from prohibitionism to uncritical acceptance. Based on research, including the "Tabletti@mo in 0-6" project, we propose guidelines for selecting appropriate apps and promoting positive touchscreen interactions to support educational mediation that centers children's rights and expressive capacities. We move beyond binary positions to recognize that traditional and digital tools need not be antagonistic.

Keywords: early childhood services, media education, apps, parenting, innovative teaching.

Riassunto. Gli ambienti digitali, in particolare i media touchscreen, caratterizzano sempre più l'esperienza quotidiana dell'infanzia, con bambini sotto i tre anni che accedono ad app, video e contenuti interattivi, soprattutto in contesti familiari. Ciò crea un 'paradosso educativo': genitori allarmati dal 'moral panic' verso il digitale si oppongono ai tablet nei contesti educativi mentre li utilizzano nella quotidianità con poca attenzione e pensiero critico-creativo. Piuttosto come shut toys. Non solo, ma la connettività in Italia si è sviluppata in ritardo e con ampie differenze territoriali, restituendo una fotografia alquanto complessa e problematica di disuguaglianze di accesso e di alfabetizzazione sul territorio nazional, evidenziate particolarmente dalla pandemia

COVID-19. Questo articolo vuole esaminare come i servizi educativi rivolti all'infanzia rivestano un ruolo centrale nella costruzione di una cultura al digitale per i bambini e le bambine come diritto di alfabetizzazione, per l'opportunità di mediare e familiarizzare nella conoscenza degli usi complessi e creativi degli strumenti tecnologi in dialogo con gli altri materiali di gioco, lettura e apprendimento, e fungere da guida per le famiglie che navigano tra approcci contraddittori, dal proibizionismo all'accettazione. Basandosi su ricerche, tra cui il progetto "Tabletti@mo nello 0-6", si propongono linee guida per selezionare app appropriate e promuovere interazioni positive con i touchscreen per sostenere una mediazione educativa che metta al centro i diritti dell'infanzia e le sue capacità espressive, superando posizioni binarie per riconoscere che strumenti tradizionali e digitali non devono essere antagonisti.

Parole chiave: servizi 0-6, media education, app; genitorialità, didattica innovativa.

1. DIGITAL SCENARIOS IN THE FAMILY: CHILDHOOD BETWEEN RISKS AND OPPORTUNITIES

The recent COVID-19 pandemic has radically transformed educational systems globally, starting with early childhood, by designing educational participation through digital. From a dimension previously viewed with a certain diffidence about the age of children in nurseries and preschools, digital technology transformed, at least during the emergency period, into an opportunity, activating what became known as LEADs (Legami Educativi a Distanza – Educational Distance Ties). In the document "Pedagogical orientations on LEADs: Educational Distance Ties – a different way to do nursery and preschool" elaborated by the Commission Infancy Integrated System Zero-six (Legislative Decree 65/2017) in May 2020, it is stated that «the educational aspect at this age is grafted on the affective and motivational bond. [...] LEADs are built in a virtual environment: it is a presence at a distance, an oxymoron made possible today by technology».

While this proposal assumes that most families own a smartphone, tablet, PC, or notebook, as the document reiterates, the picture emerging from various national reports on the new forms of educational poverty presents us with a country with strong ambivalences, contradictions, and educational emergencies. Inequality in access to the net, defined in the literature as 'first-level digital divide' (Di Maggio *et al.*, 2001; van Dijk, 2005), is highlighted, for instance, by the ISTAT 2022 Report on "Leisure and Cultural Participation". It reports that, in 2019, just one year before the pandemic, one in four people remained unfamiliar with internet use and that, in 2020, against a national average of 69% of people aged 6 and over who used it at least once a week, in the South users still did not reach two-thirds of that sample. Strong inequalities, therefore, in the access to the digital dimension, which, in the face of the epochal transformations we are going through, also mean a 'second level gap' (van Deursen & van Dijk, 2010; Ragnedda & Muschert, 2013), which concerns the dimension of broad, creative and proactive skills in the use one makes of the net and digital tools in general. The general trend, noted in the report for a wide range of activities, is not uniform across all population groups.

Even on an international level, the recent snapshot taken during the 2020 lockdown by the US non-governmental organisation Common Sense – which has been promoting research and projects on the relationship between media and the younger generations from a cultural, social and pedagogical perspective for more than 20 years – shows complex ambivalences in the relationship between screens in the family contexts. It highlights how screen time among younger children has doubled since 2017 and is dominated by online video viewing, with a growing use of mobile devices, especially among low-income families. Serious inequalities in internet and computer access persist, hindering digital equity, despite low-income households being more likely to view media as educational tools than more affluent ones (Rideout & Robb, 2020). It is interesting to put this analysis in correlation with another important national study carried out by Open Polis, 2020, on the digital inequalities that emerged during the various lockdowns, concerning DAD (distance learning), LEADs, and the possibility for children and families to access the net. Striking and deeply questioning for the education and training system is the figure that emerges as the main reason for the lack of access to the net:

> The reasons given by families are different and vary widely across the country. The prevailing ones, and presumably more linked to the respondent's age, are the lack of ability to use it (56.4%) and disinterest in the tool (25.5% answer that they do not have the Internet because they do not consider it useful or interesting) (Open Polis, 2020, p. 35).

Economic factors related to access costs and device purchases are therefore not the primary barriers: the true 'digital gap' is no longer measured only in terms of lack of access. The relationship between parental mediation and socio-economic status is a more complex issue linked to both digital inequalities and parenting styles

(Mascheroni *et al*., 2016). On the one hand, it concerns the level of skills available to master technological tools. On the other hand, there is a broader and deeper dimension of a value consideration of digital media and technologies: they are not considered useful, interesting, we could say a cultural product/tool and, therefore, a 'common good' to be cultivated, to be known critically and proactively. Both dimensions strongly represent a pedagogical challenge to be addressed from early childhood, on which an ambivalent and contradictory adult attitude towards the use of devices increasingly acts. While intuitiveness and immediacy have made tablets and smartphones pervasive devices used even by children under three years old, often handed to them by parents in potentially positive and negative ways (Connell, Lauricella & Wartella, 2015; Ofcom, 2022), on the other hand, these same parents, frightened and alarmed by the so-called 'moral panic' (Cohen, 1987) around digital (Wark, 1994), oppose the introduction of tablets and apps in the didactics of early childhood services, realising an 'educational paradox', in which children themselves are denied the needs and rights of digital citizenship education.

Already in the 1980s, the sociologist and mass media theorist Neil Postman discussed the 'disappearance of childhood', attributing its cause to the electronic media:

> Television is eliminating the dividing line between childhood and adulthood in three ways, all three related to its undifferentiated accessibility. Firstly, because it does not require an education to understand its form; secondly, because it does not impose difficult questions of an intellectual or ethical nature; and finally, because it does not separate its viewers from one another» (Postman, 1986, p. 103).

Regarding digital technology, Hanna Rosin (2013) speaks of the 'dilemma of the touch screen generation', picturing the parental dilemma between stimulating learning skills in the new technological and network languages and fearing negative and unclear outcomes from excessive and early exposure to the digital. The subject of debate, in any case, turns out to be both the tool and the technology itself, with its structural characteristics, as well as the various practices of use, concerning limits and potential for learning and access. In the 0-6 age group, the debate is characterized by alarmist positions on the alleged negative effects (Di Bari, 2016). Additionally, the "Tabletti@mo" research conducted by the Centre for Studies and Research on Education, Media and Technologies (CeMET) of the University of Bologna, in collaboration with the University of Chieti-Pescara, is one of the first studies on these topics, involving approximately 350 families and 55 educators from the 0-6 services of the Municipality of Parma, Ortona, and Unione delle Terre dei Castelli between 2015 and 2018. This research revealed dichotomous representations and emotional experiences regarding the relationship between childhood and technologies (Nardone et al, 2016). «A seesaw between fears and curiosity, mainly due, as declared by most, to the lack of knowledge and use of digital tools, of their potentialities» (ibid., p. 486), triggers feelings of inadequacy that contrast with the ever-increasing skills and curiosity of the boys and girls, visible – as the educators stated in the focus groups – from their observations during the simulation games in the section, as well as from their dialogues, in which they introduce actions and languages proper to interaction with these devices. Children learn by imitation, including in digital use, by observing the adult world, especially parents and family members, such as older siblings and also cousins, aunts/uncles, and so on, as well as family friends (Chaudron, 2015).

2. WHICH, HOW, WHERE, WHEN AND WHY? APPS AND DEVICES IN EDUCATIONAL INTERACTIONS

In family digital usage patterns, the shut-up or digital pacifier mode continues to prevail, i.e., used to 'keep them quiet' or, as the voices of the teachers in our research put it, 'to dull, numb, distract, ...'. These tools are therefore not recognized for their educational potential as "genuine" cultural media (comparable to a book or a work of art), with intrinsic complexity, plurality of contents, and literacy possibilities. Digital devices are proposed as screens 'to look at' or that merely enchant. Not surprisingly, the most frequently used apps in the 0-6 age group are apps such as YouTube or other social video-entertainment channels used during mealtimes (47% of parents responding to the survey questionnaire) or when outside the home, traveling, or in waiting situations. The aforementioned Ofcam report of 2022 found that 97% of parents of children aged 3 to 7 report that smartphones and tablets are most commonly used for watching videos, cartoons, and films. Similarly, in a 2016 survey promoted by the Child Health Centre, involving 1,350 parents of children from 0 to 5 years old across Italy, significant findings emerged regarding usage patterns: while only 30% reported allowing their children to use smartphones or tablets under their supervision, 17% allowed independent use, rising to 80% for children aged 3-5 years (Balbinot, Toffol, Tamburini, 2016).

This aspect of delegation is also evident in how parents choose and use downloaded apps. Most parents select apps with ratings in various stores, preferably free ones, and based on word-of-mouth recommendations

from other parents or acquaintances. Although they consider it useful to have information about an app before downloading it (more than 90% of the research sample is of this opinion), they neither try the app beforehand nor together with their child, and most importantly, they do not test all its features. The children's app market proliferates with diverse content of varying quality, which constitutes an 'educational app'. Educational is frequently understood as synonymous with performance learning, featuring executory actions to reinforce transmissive cognitive skills at the expense of more expressive, creative approaches with open-ended content. It therefore becomes increasingly complex for parents to navigate this landscape, risking the selection of products that reinforce school-like modes at the expense of a more genuinely educational vision appropriate for early childhood (Ranieri, 2020). As Riva (2014) explains, apps with exploratory and interactive features can foster knowledge of the world and self-awareness in young children. Indeed, brain imaging studies conducted during early childhood have revealed that the multimedia dimension of apps that mix storytelling and interaction can facilitate cognitive integration, involving both the frontal lobe, the seat of higher cognitive functions, and the parietal lobe, which controls visuospatial activity.

It is therefore fundamental to rethink the role that early childhood services can play in building critical knowledge and culture around digital technology in children's daily lives. The pedagogical culture of the 0-6 services is characterised precisely by placing the dimension of exploration, discovery, collaborative construction and learning through play at the centre of educational planning. This makes them ideal contexts and environments for experimenting, through a research-action approach, daily practices of positive and creative integration of technologies in early childhood (Resnik, 2017; Ferranti, 2018). Today's children increasingly need and have the right to be educated by adults who are more and more aware of the new languages and tools for building on-life citizenship (Floridi, 2014), who renew educational competences between traditional and new knowledge, and who know how to prepare:

- Contexts
- Usage models Integration of multiple tools
- Diversification of learning experiences, play, reading, and creativity.

As Hanna Rosin (2013) suggests, to choose which type of app to use, it is necessary to evaluate, in a more complex way, the relationship of three elements: 'the content, the context and the type of child'. This direction of parental awareness is also supported by findings from an Australian research conducted by Neumann (2015), providing useful strategies to analyse the quality of children's interactions with technologies: "In this sense, mindfulness means developing an active and reflective awareness of a child's use of a particular digital device. To apply a mindful approach to digital technology, it is suggested that parents use the following pattern of 5W questions (Who? What? Where? Why? When?) during their preschooler's interactions with digital devices such as tablets or TVs. The answers to each question will be self-evident and will help parents to regulate their child's use of the digital device in order to set up the activity in a way that encourages positive and healthy screen-use experiences."

The "Tablletti@amo" action-research also proposed a methodology for involving the parents' group, developing a research-training path to experiment with the use of apps in the family context by activating them as researchers through a grid of observation of their children's interactions with tablets and with any siblings. This activity aimed, first and foremost, to enable them to suspend judgement regarding an activity they often view as worrying, negative and full of contradictions (as mentioned above); careful and intentional observation made them aware of the learning that occurs during the experience of interacting and playing with apps previously analysed together on the basis of characteristics such as: what content do they offer? What gestures do they require? What types of interactions do they develop? Do they reinforce instructive, manipulative, or creative modes? The observation also aimed to detect how much emotion and socialization occur when using apps with 'quality' characteristics. Parents themselves were surprised by the level of engagement, curiosity, and relationship-building that can occur when different apps are proposed, as well as the variety of usage modes that can be suggested and arise from app use.

> I would never have thought that an augmented reality app about nocturnal animals, linked to a book, would generate so many dialogues and curiosities that involved us as a family, to the point of leaving the tablet at home and wanting to spend a night in a tent in the backyard to discover how nature is transformed around us.

This was the feedback from a mother who was initially very sceptical and against the project. «Children today can interact with toys that integrate multimedia materials with traditional games, bringing together physical and virtual realities, augmented reality and virtual reality» (Ferranti, 2016, p. 106): through researching, one discovers apps that are structurally designed to put childhood in dialogue with itself and the world,

exploring, moving in space, interacting even with voice or with creative solution choices that allow it to experience the *personalisation* of digital content. These are so-called 'constructive' apps (Goodwin and Highfield, 2012) or open apps (Flewitt et al, 2015), characterised by open environments in which children can create their content and engage in deeper and more authentic ways.

Apps such as "Chomp! or Petting Zoo", both by illustrator Christopher Niemann, which use the register of irony to narrate between reality and fantasy, or "Bla Bla Bla" by Lorenzo Bravi, the only app based on vocal interaction and the expressive mechanism of mirror neurons, or the app "Singing Fingers", which samples and records any sound while drawing on the screen, representing a form of magic; or how augmented reality apps, linked to illustrated books, such as "The Owl" or "The Mur Bear", have created and enhanced family interactions. These are all apps that require and encourage adult presence, not only to perform their mechanics, since they sometimes involve the use of at least four hands (holding turning the pages of a book while the child frames the device, for instance, but especially because doing them together makes them even more fun and engaging).

3. DIGITAL AS A LITERACY RIGHT: THE ROLE OF 0-6 SERVICES FOR NEW EDUCATIONAL ALLIANCES

As Rodari states in "Il cane di Magonza" (1982) «one is not born with the instinct to read, just as one is born with the instinct to eat and drink. It is a cultural need that can only be grafted onto the child's personality. This is a very delicate operation, because the only comparison it can bear is that with the grafting of a new sense: the sense of the book, the ability to also use the book as a tool to learn about the world, to conquer reality, to grow» (p. 159). If we replace for a moment the action of reading with the concept of literacy, which includes digital literacy, and replace the word book with tablet, we can find in Rodari's words the pedagogical direction towards which to orient educational practices: «the sense of the *tablet*, the ability to also use the tablet as a tool to learn about the world, to conquer reality, to grow».

How, then, can we build contexts, environments that allow children to learn about the world and conquer reality through digital technology and its alphabets, to grow up as active, critical citizens, who use rather than suffer from these tools? What educational models do today's early childhood services propose and convey when technological artefacts are present within them? What training models are needed for educators and teachers to be able to guide children and their families with skills and awareness in the new environments? These are some of the questions that the "Tabletti@amo" action-research generated, leading to the need to propose a permanent training course for educational professionals working with the 0-6 age group. This course aims to include the use of digital devices within the educational design of early childhood services from a Media Education perspective, promoting knowledge, skills, and reflections for a more conscious, critical, and creative use. The pedagogical approach that we wish to support is that of an active childhood, protected in its literacy rights, which also includes the beauty that media can offer, and for this reason, the course's objectives are:

- being able to observe the spontaneous ways in which children use the tablet to recognise and value new learning, skills;
- to know the modes of exploration and learning activated in the interaction with these tools to redefine educational roles, contexts, and practices;
- to analyze and define and define the characteristics of apps intended for children to be able to choose the most meaningful and functional ones for a quality proposal;
- to design educational and didactic experiences that integrate analogue and digital mediators in a creative, non-stereotypical manner and that focus on the active role of children;
- to guide and support families in the promotion of a healthy and positive digital and multimedia culture.

Formal education contexts are fundamental for constructing a cultural paradigm that frees childhood from the constraints of stereotypes, uses that develop in informal time on the one hand, and from the constraints of fears and alarmism that often occur in non-formal dimensions. Both postures deny the right to a critical, regulated literacy and knowledge that is accessible to all, regardless of geographical, socioeconomic and cultural background. The world of education and its practitioners, however, is not immune to these attitudes of delegitimization regarding digital technology: whether fascinated or frightened, merits or faults are attributed to technology (Guerra, 2012). «Instead, there is a superiority of *the logos,* of the educational model over the technical model, to reaffirm a cultural and pedagogical approach capable of accompanying educational choices with responsibility and awareness» (Nardone *et al.*, 2016, p. 483).

In 0-6 services, there is a need for an expansion of the concept of literacy, which retains the traditional logic, based on reading, writing, listening, and speaking, but includes digital literacy, which can be defined as

> a social practice involving reading, writing and multimodal meaning-making through the use of a range of digital and traditional technologies, which involves the acquisition of skills, including traditional skills related to literacy print, but also those related to accessing and using digital technologies (Sefton-Green et al, 2016, p. 15).

There are different ways of reading and writing, and communication – as Kres (2001) states – has always been multimodal; however, the great power attributed to the word, particularly the written word, in social history, has resulted in an almost exclusive focus on it, considering only the verbal and written production as text (worthy of study and teaching). Today, with the development of complex narrative and digital forms, this is no longer enough: the skills required to read a comic book, or web pages, smartphone interfaces, and so on, are different from those needed to read a traditional book or a letter. It is therefore not enough to be able to read and write, but one must learn to read and write and understand meanings in broad semiotic domains, which imply not only decoding words, but also understanding the interrelationships between images, colours, words, spatial arrangements, sounds, etc. In this sense, apps and interactive narratives, consisting of frames, texts, images, relationships between elements of different nature and function, represent multimodal narratives. A complex bricolage in the activation of possibilities for meta-cognition: stories to be navigated, as a new way of reading and writing while acting and exploring the worlds we immerse ourselves in, from a very young age (Grossi, Nardone & Previtali, 2025). In July 2022, at the 22nd European Literacy Conference in Dublin, the European Declaration on Digital Literacy as a fundamental right of children was launched by the ELINET network (European Literacy Policy Network)[1].

> EU Member States should ensure that children, regardless of social class, religion, ethnicity, origin and gender, are provided with the necessary resources and opportunities to develop sufficient and sustainable digital competences to effectively understand and use digital devices as new ways to learn, communicate, explore, entertain, and fulfil personal aims.

These words read on the website of the European network, identifying ten fundamental points to be guaranteed in today's childhood education system, confirming, also at European level, the need to have adult education professionals with high literacy and new media literacy skills, to build bridges of educational alliances and good practices in the family (for more on the ten points see Valtin, 2023).

Educating for reading in the digital age, therefore, also implies educating for visual literacy, understood as the "complex act of attributing meaning to still or moving images. As in reading comprehension, visually literate learners can make connections. They determine the significance of what they see, synthesise information, evaluate and criticise. Moreover, visual interpretation skills are intertwined with those of textual interpretation, so their interaction forms the basis for a more comprehensive understanding." (Frey & Fisher, 2008, p. 1). An early childhood service that questions how to incorporate digital devices into educational design is a service that also responds to the needs of so-called 'emergent literacy' from the perspective of the concomitant interdependent development of reading, writing and oral language skills from very early childhood, as a result of children's exposure to interactions in literate social contexts (Filograsso, 2017). Not only that, but to develop skills for readers in the digital age means developing skills for users of hybrid stories, structured no longer in a linear manner, but with "an organisation, non-sequential, into multiple meaning and interactive formats. [...] with changing perspectives, multiple, visual and verbal [...] and changing boundaries" (Dresang, 1999, pp. 38-40).

Even in the initial phase of the "Tabletti@mo" research, the teachers involved voiced doubts related to apps, seeing them as antithetical to the world of reading, a privileged dimension for childhood training and education: «Reading on another device is not the same as reading a book», «Can time spent with an app on a tablet be considered time spent reading (enjoying) stories?», «Technologies are impoverishing the ability and interest in reading, manual activities», «Digital takes away creativity and the ability to listen». It was, therefore, a matter of guiding them towards the discovery of other meanings of reading, of listening, not in antithesis with the best children's literature, but rather in extension and complicity, discovering that publishers of reference for the quality of their books – such as Minibombo – are also developers of apps that maintain the characteristics of a product talored for early childhood: limited attention spans; sharp colours and shapes with complementary tones; sound as a non-invasive narrative element; and usage modes that allow for brief and partial enjoyment through circumscribed levels. Also noteworthy are apps that address the child-reader/player as protagonist and constructor of meanings, voices and scenarios, as in *"0h!"*, an app with delicate, whispered sounds in which children are invited to give a view of a city above and

[1] See https://elinet.pro/european-declaration-of-digital-literacy-as-a-basic-right-of-children/

below the horizon line, outlined, because everything else is in the hands of the user.

How many and which teaching methods should be used to introduce the tablet in a classroom? First, it is important to integrate the device within all the other educational materials and mediators in the service: to remove the 'wow' effect of a special object, it must be put in dialogue with the other activities. Tisseron (2016) identifies three key attentions (three 'A's') to adopt for educationally integrating screens in children's daily lives: 'accompaniment', the adult's willingness to accompany the child in the discovery of the uses and in the dialogue about the experiences with the screens; 'alternation', based on «the diversification of stimuli and the encouragement of the child to develop activities that serve to mobilise his or her five senses and ten fingers» (ibid., p. 24), and self-regulation, i.e. the child's «ability to use the screens in an educational way» (ibid., p. 24); 'self-regulation', providing appropriate tools and rules so that they can make balanced choices for themselves. Introducing devices in an educational service, therefore, requires a strong commitment, an attentive and willing presence, both in searching for the best products, and in the development of designs that incorporate them in a creative and conscious manner. Devices and technologies, are never neutral; they have characteristics and 'affordances', qualities that invite one or more uses based on their design, which may suggest the purpose for which they were created (Norman, 2013), or one can experiment with alternative approaches based on structural characteristics, almost inverting their, as Bruno Munari did by using the photocopier to modify photos rather than make identical copies, by allowing light in or moving the sheet.

When stories are proposed with different reading modes (aloud to a large group or small group; in pairs; individual), the setting and management approaches are also considered: this must also be the case with the tablet, setting up different environments depending on the group, the context and type of activity. The children's and educators' amazement at the degree of inclusion created by connecting the tablet to the video projector, directed toward the floor transforms the experience – interaction with the tablet and app loses its central importance because the entire class: feels 'inside the story', crawling and rolling around in the shared simulation. In this way, the much-feared attitudes of quarrels and bullying over who gets to use the tool are not triggered; instead the rules of respect and collaboration in use are well understood precisely because of the inclusive setting created. Everyone is inside the experience, just as if one were to turn the video projector towards the ceiling, with everyone lying down to admire the constellations, skies and falling snow. This is what happened in the use of the book with augmented reality app "L'orsetta Mur" (2018), an experience tested in a 1-6 educational service of the Municipality of Bologna. The educator reproduced the story's scenic setting of the book, connecting the audio of the app in diffuse mode in the room, allowing the small group of children to bring the story to life, through the augmented reality app which, as it develops, requires them to move around the room, explore, chase the bird in the woods and catch falling snowflakes. During the experience, verbal interactions are abundant; in fact, they constitute a crescendo of observations and personal stories intertwined with intense and attentive emotions. The group is fully aware of the fictional plane, and they play along, pretending to mirror themselves in the pond that appears on the tablet, or to lie in the cold snow. The 4-year-old girl holds the tablet and asks someone else to click to change the scenery. A younger child asks her how, and she suggests using two fingers, scrolling from one side to the other to change the scenery. «Together we change the world!» adds another child who was participating while observing. «Yes, we do it together!».

4. CONCLUSIONS TO CONTINUE: THE SEARCH CONTINUES

The research and experimentation conducted to date, along with the activated training courses, increasingly fuel the need, necessity and urgency to systemize experiences and educational methods that free childhood from the constraints of nostalgic visions of a "safer" past. These approaches construct binary and antinomian visions between new apocalyptics and new integrated ones, lined up in a false antinomy between real and virtual, as well as a neo-liberal logic of a present that delegates and abandons childhood to momentary trends, viewing children and families as uncritical and subjugated consumers. The factor that unites the traditional aspects with the more innovative ones is the need for co-participation in educational activity, whatever the educational mediator, for "a childhood that is not divided between two instruments of communication, but rather, as Walter Ong said, *immersed* in the best of both, with other options yet to come..." (Wolf, 2018, p. 158)

The directions can only be that of intentionally, to experiment, search for, and build beauty also in and with the digital, to serve as compasses for educational orientation regarding media, building new alliances between families, school and territory, fostering critical and active knowledge for the future citizens,

As Rodari (1981) teaches us: «We must deliver cultural tools. Knowledge is not a quantity, it is a quest. We must not give children quantities of knowledge but tools for research, cultural tools so that they can create, push their research as far as they can; then, of course, it will always be up to us to push further and help them refine these tools».

REFERENCES

Balbinot, V., Toffol, G., Tamburlini, G. (2016). Tecnologie digitali e bambini: un'indagine sul loro utilizzo nei primi anni di vita. *Medico e Bambino*, 35, 631-636. https://csbonlus.org/wp-content/uploads/2020/07/Tecnologie-digitali-e-bambini-versione-pubblicata-MEDICO-E-BAMBINO-23.01.2017.pdf

Chaudron, S. (2015). *Young Children & Digital Technology: A qualitative exploratory study across seven countries.* Publications Office of the European Union.

Cohen, S. (1987). *Folk Devils and Moral Panics: The Creation of the Mods and the Rockets.* Basil Blackell.

Connell, S. L., Lauricella, A. R., Wartella, E. (2015). Parental co-use of media technology with their young children in the USA. *Journal of Children and Media*, 9, 5-21. https://doi.org/10.1080/17482798.2015.997440

Di Bari C. (2016). *Educare l'infanzia nel mondo dei media. Il ruolo dell'adulto in famiglia e nei contesti educativi.* Edizioni Anicia.

Di Maggio, P., E. Hargittai, Neuman, W.R., Robinson, J.P. (2001). Social Implications of the Internet. *Annual Review of Sociology*, 27(1), 307-336. https://doi.org/10.1146/annurev.soc.27.1.307

Dresang, E. T. (1999). *Radical Change: Books for Youth in a Digital Age.* The Wilson Company.

Ferranti, C. (2018). *Giocare e apprendere con le tecnologie. Esperienze da 0 a 6 anni.* Carocci.

Flewitt, R., Messer, D., Kurcikova, N. (2015). "New Directions for Early Literacy in a Digital Age: The iPad". *Journal of Early Childhood Literacy*, 15 (3), https://doi.org/10.1177/1468798414533560

Filograsso, I. (2017). Teaching Reading in a digital age: didactic issues from an european perspective**.** *Metis*, VII(1). https://www.metisjournal.it/metis/anno-vii-numero-1-062017-lavoro-liquido.html

Frey, N., Fisher, D. (2008). *Teaching visual literacy: Using comic books, graphic novels, anime, cartoons, and more to develop comprehension and thinking skills.* Corwin Press.

Goodwin, K., Highfield, K. (2012). iTouch and iLearn: an examination of «educational» apps. Paper presented at the *Early Education and Technology for Children conference*, March 14-16, 2012, Salt Lake City, Utah. https://www.academia.edu/download/26020862/Goodwin_Highfield_2012_iTouch_and_iLearn.pdf

Grossi, G., Nardone, R., Previtali, G. (2025), *Postmedia Education. Visual literacy e media digitali*, McGraw-Hill.

Guerra, L. (2012). Le nuove tecnologie nella Scuola dell'Infanzia. *Infanzia*, 3, 2012, 163-166.

ISTAT 2022. *Tempo libero e partecipazione culturale. Tra vecchie e nuove pratiche.* https://www.istat.it/it/files/2022/09/Tempo-libero-e-partecipazione-culturale_Ebook.pdf

Mascheroni G., Livingstone S., Dreier M., Chaudron S. (2016). Learning versus play or learning through play? How parents' imaginaries, discourses and practices around ICTs shape children's (digital) literacy practices. *MEDIA EDUCATION*, 7, 261-280. https://doi.org/10.14605/MED721606

Nardone, R., Pacetti, E., Zanetti F. (2016). "Tabletti@mo: una proposta di ricerca su educazione, prima infanzia e tecnologie digitali". In Ulivieri, S., Dozza, L. (a cura di) (2016), L'educazione permanente a partire dalle prime età della vita. Franco Angeli. http://ojs.francoangeli.it/_omp/index.php/oa/catalog/book/199

Neumann, M. M. (2015). Young children and screen time: Creating a mindful approach to digital technology. *Australian Educational Computing,* 30 (2) https://www.researchgate.net/publication/289379910_Young_children_and_screen_time_Creating_a_mindful_approach_to_digital_technology

Norman, D. (2013). *The design of everyday things.* Basic Books.

Ofcom (2022). *Children and parents: Media use and attitudes report*. London: Office of Communications https://www.ofcom.org.uk/__data/assets/pdf_file/0024/78513/childrens_parents_nov2015.pdf

Open Polis (2020). *Disuguaglianze digitali.* Report luglio 2020 https://www.openpolis.it/wpcontent/uploads/2020/07/Disuguaglianze-digitali.pdf

Postman N. (1986). *La scomparsa dell'infanzia.* Armando.

Ragnedda, M., Muschert, G.W. (2013). *The Digital Divide. The Internet and Social Inequality in International Perspective*. Routledge.

Ranieri, M. (2020). *Tecnologie per educatori socio-pedagogici. Metodi e strumenti.* Carocci.

Rideout V., Robb M.B. (2020). *The Common Sense Census: Media use by kids age zero to eight.* Common Sense Media. https://www.commonsensemedia.org/sites/default/files/research/report/2020_zero_to_eight_census_final_web.pdf

Riva, G. (2014). *Nativi digitali. Crescere e apprendere nel mondo dei nuovi media*, Il Mulino.
Rodari, G. (1981). Scuola di fantasia. *Riforma della scuola*, 5.
Rodari, G. (1982). *Il cane di Magonza*. Editori Riuniti.
Rosin, H. (2013). The Touch-Screen Generation". *The Atlantic*. http://www.theatlantic.com/magazine/archive/2013/04/the-touch-screen-generation/309250/
Sefton-Green, J., Marsh, J., Erstad, O., Flewitt, R. (2016). Establishing a research agenda for the digital literacy practices of young children. *A White Paper for COST Action IS1410*, 1-37. https://e-space.mmu.ac.uk/624229/
Tisseron, S. (2016). *3-6-9-12. Diventare grandi all'epoca degli schermi digitali*. Editrice La Scuola.
Valtin R. (2023). The right to digital literacy. *Literacy Today*, 70-71. https://u.garr.it/l2KCY
van Deursen, A.J.A.M., van Dijk, J.A.G.M. (2010). "Measuring Internet Skills". *International*
Journal of Human-Computer Interaction. Volume 26, Issue 10: 891-916
van Dijk, J.A.G.M. (2005). *The Deepening Divide: Inequality in the Information Society*. SAGE.
Wark, M. (1994). The Video Game as an Emergent Media Form. *Media Information Australia*, 71(1), 21-30. https://doi.org/10.1177/1329878X9407100105
Wolf, M. (2018). *Lettore, vieni a casa. Il cervello che legge in un mondo digitale*, Vita & Pensiero.