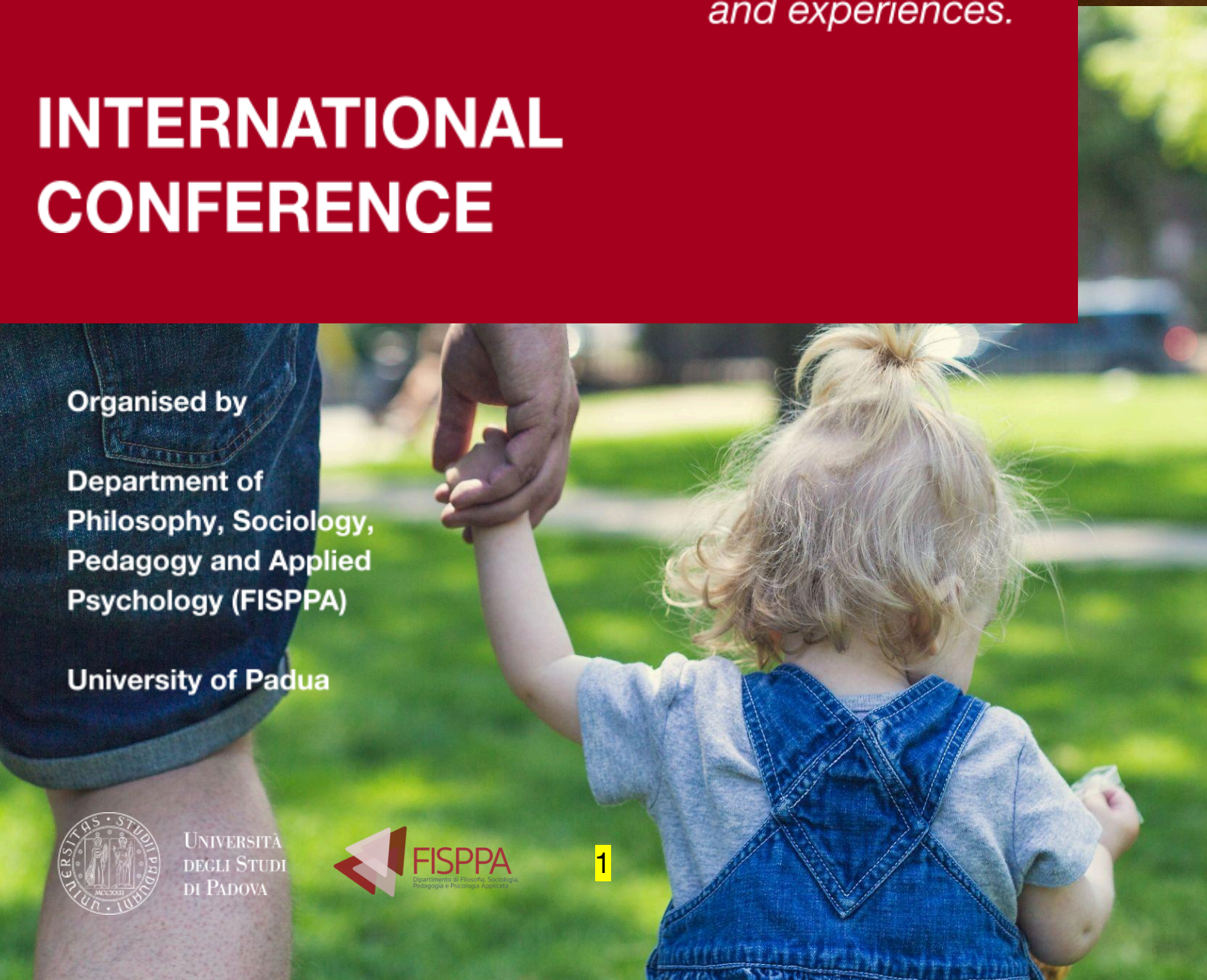
**PROJECT DATACHILDMAP**
**21-22 June 2024**
**Padua, Italy**

*Childhood(s)*
*in the postdigital society:*
*Educators' practices*
*and knowledge,*
*Families approaches*
*and experiences.*

# INTERNATIONAL CONFERENCE



**Organised by**

**Department of Philosophy, Sociology, Pedagogy and Applied Psychology (FISPPA)**

**University of Padua**

UNIVERSITÀ DEGLI STUDI DI PADOVA

FISPPA
Dipartimento di Filosofia, Sociologia, Pedagogia e Psicologia Applicata

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**Editorial: Introduction to the Conference**

*Juliana Raffaghelli, Emilia Restiglian, Marco Scarcelli*
*Marina De Rossi, Luca Agostinetto*

It is easy for us to claim: the relationship between the usage of household technology and its use in educational settings and practices in Early Childhood Education and Care requires investigation. Less easy is convincingly argumenting, and more importantly, motivating our audiences to engage in transformative action taking in both educational practice and research.

Let's start by understanding the technological shift, to then delve into the motivations to reflect about childhood, families and educators' (troubled) perspectives.

Today, we are living in a modern era dominated by the widespread use of digital and cognitive technologies. In fact, as Floridi pointed out, our lives might be described as being "onlife" (Floridi, 2014). Put simply, the distinction between the digital realm and the physical world is becoming increasingly blurred. This is due to the fact that our thoughts and actions generate relevant information that can be captured by various interfaces, primarily our mobile devices, as well as sensors, webcams, and optical technologies. But at the same time, those actions might be also influenced by algorithms processing such data, and suggestions that originate from them (Kitchin, 2014). We are currently observing the emergence of a new era in which AI is becoming widespread. This includes not only the initial forms of AI that entered our homes, such as voice assistants, or the content classification systems on social media. It also encompasses the presence of generative AI technologies, such as chatbots, which allow us to interact with them through written or oral communication (Bozkurt et al., 2023). The shifts, which elicit a range of responses from joy and awe to astonishment and suspicion, are the focus of our innate human desire for comprehension. Precisely, clean and occasionally "user friendly" interfaces obscure from the user a sophisticated machine, founded on the ongoing extraction, categorisation, and utilisation of digital data for the objective of profiling and activating systems. More precisely, this data is increasingly becoming the actual source material for the advancement of automated and

intelligent systems. And that happens at social and economic costs (Crawford, 2021).

The term used in literature to refer to this phenomenon is "datification". Due to the significant control exerted by dominant global manufacturers of digital interfaces that can effectively handle large volumes of data, there is a notable inclination towards the practice of profiling and monetization. This results in substantial profits for the monopolistic companies, specifically the BigTechs (van Dijck et al., 2018). This reasoning has also spread throughout educational activities, posing challenges for all participants in education and training institutions (Pangrazio & Sefton-Green, 2022). However, an interdisciplinary look at the technological shift has led to imagine alternative approaches where the individual or the collectives gain autonomy, claim for their right to understand to live with transparent and trustworthy technological infrastructures. This is exactly what we refer to when we talk about a “postdigital” stance. Aligning with Knox (2019), the suffix “post” should not lead to think to the continuity between the digital and the postdigital, as this last being just the aftermath. The postdigital refers to the technology we can appropriate, we can shape and we can also resist if it is the case (Raffaghelli et al., 2023).

Now, let’s move back to childhood, families and educators and imagine it within the already depicted “tech” context. Similar to various other aspects of daily life, the processes of generating and utilising data extend into the personal domain of families and early childhood (Mascheroni & Siibak, 2021).

Typically, the educational approach to these issues has primarily concentrated on promoting media literacy and fostering digital skills that can empower individuals to navigate their online lives effectively (Ferrarelli, 2021; Pangrazio & Selwyn, 2019). Nevertheless, providing educational assistance to families with children and young individuals in relation to their media consumption remains an ambiguous matter (Pangrazio & Mavoa, 2023). The private realm of families presents an opportunity for educational intervention to intersect or influence, but the effectiveness of such intervention is uncertain (Restiglian et al., 2023). This particular area appears to have just a peripheral connection to educational practice. Can adults be educated or familiarised with media

consumption as a means to address the issue of post-digitality in childhood, especially when the choices made are not solely the duty and opportunity of the developing individual? Is the training in jeopardy? What are the appropriate options that can be considered without infringing upon personal, cultural, and political preferences?

We must now consider that the daily activities and educational structure are also integrated with the family, as a seamless continuation (Rossi & Restiglian, 2013). There is a significant mutual exchange of information between families and childcare institutions, facilitated by the habit of documenting. Educators' perspectives on the use of social media and educational platforms are often shaped by family aspirations (Darnau et al., 2023). Also the medical-health discourse regarding the monitoring of growth, physiology, and standards of physical and socio-emotional development enters into both families and ECEC through numerous apps that quantify the self (Lupton & Williamson, 2017;  Raffaghelli et al., 2024). Teachers and educators experience difficulties as they attempt to establish boundaries within a context of progressive platformisation (Rivera-Vargas et al., 2023). Ultimately, they are influenced by the expectations of parents: the need for impactful education and the cultivation of essential skills necessary for the increasingly computerised world in which their children will reside (Jacovkis et al., 2022; Ranieri, 2022).

In such a situation, it is necessary to have a sophisticated level of professionalism that should be enacted only in those moments of dialogue where the family chooses to disclose or make their educational space accessible. The story (and the scholarly research) has long taught us that social inequities arrive at school and remain there, unless the schools become integrated to the communities and generate “third spaces” of transaction between the families’ educational goals and the education institutions’ goals. And liaising with Malaguzzi's idea of a “culture of childhood” this becomes particularly true. When imagining early childhood education and care, a childhood’s culture cannot but be built through the meaningful interaction between families and educational institutions (Malaguzzi, 1998). From one side, how technologies are entering and will continue to invade intimate spaces, the personal lives of children, their rights, is something that cannot be considered the sole family’s responsibility. From the other side, how the emerging,

datafication and platforms enter into the school as public space, and push educators into “to use or not to use” dilemmas cannot be the matter of isolated professionals (Raffaghelli, 2023). We must come to terms with the disparities and issues related to screen exposure in childhood, sharenting, cyberbullying, digital identities, data safety and cybersecurity, to build new digital literacies and citizenship overall(Mascheroni, 2020; Pangrazio & Sefton-Green, 2022). And since we deal with an extremely complex problem, we cannot think about it but together.

This is exactly what we intend with this conference: we offer to all of the participants, being them part of the audience, or contributors, or keynote speakers, a space and a time for focus, exchange and joint exploration of the several perspectives we bring with us. Hopefully, this slow space of conversation will contribute to understanding and to a meaningful practice.

**Keywords**
data, platforms, childhood, postdigital, families, ECEC.

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**Message from the Programme Chairs: a methodological note**
*Monica Gottardo, Paola Zoroaster, Francesca Crudele*

The topic of childhood in the post-digital age has gained considerable prominence over the past few years. This attention stems from the fact that, within the same theme, different points of view emerge. Technology in education involves different actors: children, parents, educators, and teachers. Currently, in the national and international scene, scholars and researchers are trying to understand how to consciously use, even in educational contexts, technologies and artificial intelligence. Some studies highlight the opportunities arising from the use of technologies but also the risks associated with consuming technological devices in childhood.
The richness of the topic is such that it continually allows for new information, from which to be able to carry out studies and research.
In this BoA we decided to divide the central theme of the DataChildMap conference, into four sections each concerning a specific focus.

The first session, “Smart Technologies in Early Childhood, Between Educational and Family Evaluation,” brings together three contributions that highlight the risks and benefits of children's and parents' use of technologies.
The first contribution concerns research that used a systematic database to evaluate children's apps. The study emphasizes the importance of considering learning and educational value, clarity of information, security, and ethical use of data, while also stressing the need for parents to be more vigilant in choosing apps for their children.
The second contribution focuses attention on the tool of artificial intelligence within school contexts, pointing out that preschools, in particular, would have a great opportunity to facilitate the process of integrating artificial intelligence into school education and to educate children through forms of playful teaching, in the conscious use of technologies.
The third contribution concerns a sociological survey conducted to investigate children's technology consumption habits at home and school and their parents' use of digital technologies. The research produced results concerning children's exposure to digital technologies and adults' confusion about the actual consequences of their educational choices in technology.

Session two, “Mapping digital and data practices in early childhood education and care,” brings together three contributions that start from a common reflection on the concept of digital and data-based practices in ECEC, and then illuminate different critical points of the topic.
The first of the three contributions proposes a focus on families' understanding of social media and platforms in the educational-family space through a national survey of about 2,000 subjects. The results focused on the ECEC system (0-6) and highlighted the need to invest in critical digital literacy co-education of families and, consequently, young children.
With the second contribution, it aims to offer a look at teachers' perceptions of the use of digital educational platforms in primary and secondary schools in Catalonia, Spain. The focus group survey revealed the need for training for teachers so that they can obtain tools for critical integration of platforms into their teaching.
The third contribution, delves into the issue of post- digitalization for preadolescents, especially in terms of “identity formation” and “physical and/or virtual construction of the self.” A very sensitive topic, which is being drastically shattered and altered by the extreme digitalization of the environment in which we are immersed.

Session three, “Pedagogical Documentation in the Age of Platforms: Educational Practices and Dilemmas,” is characterized by rich contributions that discuss relevant issues about educational practices in settings for children 0-6 years old, delving into the topic of documentation and the presence of technologies, also in the form of toys.
The first contribution addresses issues related to the use of technologies and platforms in children's services for documenting experiences, including with families.
Through interviews with educators, an attempt was made to understand the difficulties encountered in order to offer suggestions for improving educational practices, taking into consideration the influence of digital technology.
The second contribution focuses on the use of IoToys, the implications of the use of these technological games, and the resulting changes in the concepts of playfulness and environment. The research conducted highlights good practices related to the use of technological toys, linking

them to specific educational purposes in order to enhance the opportunities given by technology.
The third contribution brings reflections related to documentation in early childhood in the current data-driven era. The contribution reports the outcomes of the experimentation of the observational and documentary tools proposed in the project, focusing on the centrality of some key aspects in working with children and noting issues to work on with respect to digital documentation.
The last contribution presented a research that reports on the analysis of early technological and media literacy, with references to adultized childhood and adolescent adulthood. Considering the Montessori method, the value of exploration by children to promote the development of mind and body is emphasized by integrating the conscious use of technologies to this.

The fourth session, “Educational Intervention Strategies in Post-Digital Childhood Contexts,” offers an in-depth study related to the use of technological devices in educational settings. The research aims to contribute to the development of skills in the use of technological devices in order to be able to introduce them consciously in childhood contexts.
The first contribution proposes a reflection with regard to relational processes between adults and children through the conscious use of digital technology. Using “guidelines,” it aims to support adults in choosing the most appropriate Apps for children's development, focusing on their centrality and recognizing risks and opportunities to help connect traditional tools and digital devices.
The research presented in the second contribution, through the ChangeLabs approach, focuses on the need to initiate processes of transformation and training in children's educational services in order to improve educational practices with greater awareness of the use of technology in connection with pedagogical documentation.
The third contribution, reflects on the integration of digital technologies in education, although there are critical training issues in relation to educators' digital skills. In order to improve training strategies, the perceptions of educators and teachers with respect to their abilities to use digital tools, their usefulness, frequency, and usage patterns are noted.
The fourth contribution reports the results of a project that aims to foster interdisciplinary research to enrich the literature and promote among

parents, educators, and teachers greater awareness of the critical issues and resources of digital use in children's lives in order to promote approaches in educational settings for the early acquisition of digital skills.

The last session of the BoA includes posters dealing with narratives about experiences, research, and surveys on changes found as a result of the use of social in the school-family relationship.
The first poster is about research conducted by a social cooperative in Trento, which used social in the Trentino educational services in which it operates, to promote reflection and sharing of the sustainability goals identified according to the 2030 Agenda to Promote Social, Economic, and Environmental Sustainability.
The second poster aims to investigate the digital skills of educators employed in early childhood education services in the Veneto region. Through the use of a specific app, Kindertap, an attempt was made to emphasize the importance of using technologies and possessing the appropriate skills right from contexts such as kindergarten.
The third poster analyzes the use of technologies for educational documentation in early childhood services in Veneto. Educational documentation is still seen as parental reporting and monitoring of the child, when in fact they would be potential tools to improve the child's planning, learning, and narrative construction.
The fourth poster addresses the issue of technological development from empirical work on the analysis of children's apps and the FABA case study. The study aims to highlight how the high use of technology, exposes early childhood to significant risks with respect to both timing and data tracking and privacy violations.
The last poster addresses the issue related to the risks that improper use of technology can bring, investigating how today's parenting deals with this issue. In particular, the research focused on analyzing pregnancy monitoring apps to identify the most commonly used ones, their impact, and adults' knowledge about potential risks.

We believe that the different sections of the BoA, thus designed and divided, can serve to guide the reader in understanding the different focuses regarding the central issue of childhood in the post-digital age. We also believe that the different contributions benefit the research and

we hope that they will stimulate methodological and professional reflection in everyone.

# SECTION: Keynotes

### “Assembling”* parents: How digital parenting is changing in the age of datafication

*Luci Pangrazio*

The focus of the keynote is how digital parenting is changing in the age of datafication.

Based on a two-year project with Australian families, Pangrazio discusses how parents navigate and understand datafication in the home, including how they mediate their children’s internet use. Drawing on the idea of the data assemblage, she highlights how datafication has not only changed the way children experience digital technologies but also how it is mediated by families. Findings suggest parents must now navigate a range of complex challenges and tensions, including providing digital opportunities while protecting their children from online harms; a lack of choice regarding the digital platforms mandated by education and care providers; and the unsettling realization that most digital experiences mean the erosion of their families’ privacy and the commodification of personal information. Given parents are just one part of any data assemblage, their priorities must compete with an array of countervailing forces. The keynote discusses how datafication is changing ‘digital parenting’ and conclude with some suggestions for future research and support for families.

* The author refers to the relationality between interfaces, algorithms, and data infrastructures, as well as how these technologies are used. These interconnected elements are considered an 'assemblage'. Therefore, 'assembling' parents indicates the post-digital problem of parenting.

**Keyword**

datafication, digital platforms, parenting, childhood, references

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**The educators in a postdigital era: in conversation with Maria Ranieri**
*Maria Ranieri, Emilia Restiglian, Juliana Raffaghelli*

The integration of technology and media education in the training and daily practices of educators and teachers presents unique challenges and opportunities in the postdigital context. At the university level, initial training for these professionals must evolve to encompass comprehensive technology and media education, addressing the distinct needs of both educators and teachers. In daily work, especially within the integrated 0-6 years system, the use of technology and media requires thoughtful reflection to enhance pedagogical practices. The COVID-19 pandemic accelerated the adoption of technologies in nurseries and primary schools, prompting a reassessment of media education's role and effectiveness. Furthermore, the current discourse on technology in schools extends to artificial intelligence (AI), raising questions about its potential for active, participatory teaching and its implications for the teaching-learning process. Exploring these aspects reveals the critical intersections between technology, education, and the evolving role of educators and teachers.
Maria Ranieri has studied educational technology and educators' professional development to support technological uptake for the last two decades in Italy and internationally. We will invite her to engage with these topics, through the following questions:
1. The 0-11 year group refers to two professional figures still rather differentiated in our school system, even for a different initial training: the educator and the teacher. Speaking of initial education, how can we stand at the university level for the training of these figures in relation to technology and media education?
2. How can we imagine the use of technologies and the reflection on media education by educators and teachers in their daily work with children, especially taking into account the integrated system 0-6 years, which deserves our attention more and more?
3. Covid has introduced technologies in nurseries and primary schools that were previously used only marginally, introducing media education

topics in the past somewhat underestimated by educators and teachers. What's left? Is what remains working, or should we review some choices and make others?
4. Does talking about technology at school today also mean referring to AI and the perspectives it opens in relation to active and participatory teaching? Also in the case of AI can we reason in terms of the process or product of teaching-learning as for "traditional" technologies?

**Keyword**
educational technologies, remote emergency teaching, post-pandemic teaching, AI, educators' professionalism

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## Families and children in a postdigital era: in conversation with Giovanna Mascheroni

*Giovanna Mascheroni, Marco Scarcelli, Juliana Raffaghelli*

Over the past decade, the presence of digital media in the lives of children and their families has grown exponentially, reshaping daily interactions and routines. When referring to childhood data, we mean the

data created by and about kids as a result of their use of digital technologies. This transformation profoundly impacts the daily lives of children and their families, influencing everything from play and learning to socialization and parental involvement. At the macro level, these changes reflect broader societal shifts towards digital integration and the increasing importance of data-driven insights. Research has been actively responding to these changes, exploring the implications for child development, education, and family dynamics. Looking ahead, future scenarios envision a more nuanced relationship between childhood and digital technologies, emphasizing the need for balanced, ethical approaches that safeguard children's well-being while leveraging the benefits of technological advancements.

Giovanna Mascheroni's influential work led us to reflect on the several forms of technology exposure and vulnerabilities in childhood. Her point of view will be explored through the following questions:

1. How has the presence of digital media in the lives of girls, children, and their families changed over the last 10 years?
2. What do you mean when you talk about childhood data?
3. What impact can this transformation have on the daily lives of girls, children, and their families?
4. And what can we see at the macro level?
5. How is research responding to these changes?
6. What are the future scenarios that you imagine in the relationship between childhood and digital technologies?

**Keyword**

datafication, digital platforms, childhood, future

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**Digital Platforms and Datification in Education: Possibilities and Challenges for Child Protections**

*Pablo Rivera Vargas*

In this keynote, the results of a study on the perceptions of the educational community regarding the use of corporate digital platforms in the Catalan education system, with a particular emphasis on privacy and data protection, will be presented. The mixed-method research was conducted in primary and secondary schools in Catalonia and involved interviews and discussion groups with school leadership teams, teachers, and students, as well as questionnaires for families. The findings reveal a shared awareness of the importance of privacy and data protection, though each group addresses these concerns differently: educators and administrators focus on legal implications and data management, students on the safe use of platforms, and families on protecting their children's personal information. The study concludes that it is essential to delve deeper into this issue to create equitable digital ecosystems that particularly protect students. It underscores the need to develop educational policies that integrate digital literacy with strong ethical components and highlights the importance of involving all educational community members in policy creation and review to ensure their effectiveness and inclusivity. Collaboration among educational institutions, families, and digital platform developers is crucial for building a safe digital environment that respects the privacy rights of all users.

**Keyword**

digital platforms, families, data protection, mixed-methods research

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# SECTION: “Smart technologies in Early childhood, between educational and family assessment”

### Benchmarking – Apps and Artificial Intelligence for early childhood: between educational and family assessment

*Paola Zoroaster, Gloria Sartori*

Childhood is a specific focus when it comes to extracting data, monetizing it, and using it to create user profiles. In this setting, parents are constantly summoned to assess the tools they use. Nevertheless, a crucial inquiry arises: are they ready to evaluate the calibre of technology available for childhood? We must comprehend the activities of digital service providers.

Children's applications must be thoroughly analysed, taking into account not just their attractiveness or the promises they make to families, but also their impact on baby development. Elements such as the clarity of information, safety, and ethical use of data might be considered essential. The current research utilises a systematic database for assessing apps,

classifying 30 applications into categories such as edutainment, education, teaching, and training. This classification is based on many factors, including educational value and user ratings. Furthermore, a comprehensive assessment was conducted to compare the public ratings with the evaluation provided by the instructor. The results underline the difficulties in assessing apps because of the widespread presence of unlicensed and untested applications. It emphasises the disparities between app assessments done by the general population and those performed by expert educators, highlighting the challenges in acquiring pertinent information for precise app assessment. The research also examines the visual attractiveness of applications and their impact on parental decision-making, sometimes taking precedence over concerns about user security and privacy. Ultimately, the research highlights the need for parents to be more vigilant when choosing applications for their children. The text brings to the fore the need of considering the learning value, educational value, clarity of information, security, and ethical usage of data.

**Keyword**

apps, early childhood, education, data privacy, quality

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**A practice of accountability in the use of AI in a private preschool**

*Giuseppe Liverano*

In a rapidly changing world, education has the arduous task of preparing children to face the complexity of the present and the challenges of the future and to navigate toward personal and professional goals while attempting to navigate transition phases without undue difficulty. With the rise of artificial intelligence, the risks associated with its integration into school education represent an unavoidable issue for educational institutions, which must take responsibility for guiding children towards responsible and conscious use and understanding of the positive and negative implications of this new technology. Artificial intelligence has the potential to revolutionise various aspects of even adult life, so its use in teaching practices at school could generate unprecedented learning experiences for pupils. Within school contexts, AI is increasingly expanding, attracting the interest of even the youngest children. Kindergartens, in particular, have a great opportunity to inaugurate the process of integrating artificial intelligence into school teaching and to educate children from an early age, who, due to the fact that they are subjects whose character and personality are still developing, can easily understand the effects of responsible use and make the rules of an ethical approach to artificial intelligence their own, perhaps through a type of teaching that is more consistent with the expectations of children who usually, at this stage, contemplate play as a tool for learning. Through playful didactics, children can learn about technology in a fun and engaging way, experiencing a depth of knowledge unheard of for their age, but which can generate surprising benefits. Artificial intelligence has

enormous potential to individualise and personalise children's learning and could prove crucial for those with vulnerabilities. In addition, it can provide immediate feedback on proposed educational algorithms and support teachers in offering tailored educational trajectories. However, there is also the risk of over-reliance on technology, which may hinder children's critical thinking and problem-solving skills and annihilate their creative potential. Furthermore, the use of artificial intelligence in education raises questions about privacy and data security, as well as the possibility of errors in algorithms that could impact the quality of education and learning of pupils and students at all levels. Understanding the rules and principles for good use of AI will be fundamental, therefore, in order to govern its performance levels and ensure that the human being, as such, can always make use of it in a way that is functional and supportive of his development, through dimensions that concern the pedagogical specificity, of which AI, for the time being, lacks them, and which represent that extra richness thanks to which humanity can still claim primacy over technology.
Only in this way will AI be able to help support mankind in its process of subjectivation and, indirectly, contribute to the construction of informed and, humanly, increasingly evolved and responsible societies.
For all the reasons expressed, in a section of a private kindergarten, consisting of 15 children, a teaching action was implemented in which parents also participated, with the aim of highlighting the benefits and potential risks of irresponsible use. Through a workshop, several actions were developed (interactive presentation, discussion, playful games) that demonstrated that responsible use of artificial intelligence can generate positive effects on children's learning and be a resource that promotes equity and inclusion.

**Keywords**
childhood, artificial intelligence, school

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**CONNECTED FAMILIES: Digital technologies in the lives of children 3-10 years old and their parents**

*Valentina Bertoldo*

The theme of digital media use now pervasively concerns childhood, opening up a multitude of issues ranging from (to name a few) the type of devices used and activities carried out to the repercussions on mood, cognitive processes, and sociality; from the rules negotiated in the home to the safety and privacy of young users.

In addition to these, there are also the challenges involving reference adults who, in addition to a constant work of technological self-adaptation, find themselves having to mediate between their own values and what is required/offered to children by institutions, the market, and relationships.

The literature concerning the issues of datafication, childhood, and parenting has become impressive: from empirical research such as that conducted by the European network EU Kids Online and the Italian research group DataChildFutures to the reports produced by organisations such as Save the Children or Unicef, both academia and

non-governmental organisations and institutions have always turned their attention to the rights and protection of minors in the digital society.
For this thesis work, which is part of a larger project developed by the FISPPA (Philosophy, Sociology, Pedagogy, and Applied Psychology) department of the University of Padua, publications such as "Digital Parenting. The challenges for families in the digital age" (Mascheroni et al. 2018), the four-handed work on new media by Lievrouw and Livingstone (2007), and the article on personal data literacies by Pangrazio and Neil (2019).
The sociological survey carried out involved a sample of thirty families, focusing both on their children's consumption habits at home and at school and on their parents' use of digital technologies at two distinct moments: before birth and today. The focus was on children between the ages of three and ten and their families, in an attempt to provide a broad snapshot of the difficulties and opportunities they perceive today.
Data collection was carried out in two stages: through a diary in which places, times, and modes of media consumption were noted down for a week and then through an informal interview with one of the parents.
The subsequent thematic analysis brought to light aspects confirming, on the one hand, the massive exposure of children to digital technologies and, on the other, confusion on the part of adults with respect to the changing context and the actual consequences of their educational choices in the technological sphere.
Finally, the survey carried out highlighted aspects that are still unclear and should be further investigated.

**Keyword**
datafication, childhood, digital technologies, parenting

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## SECTION: "Mapping digital and data practices in early childhood education and care"

### The National Survey: mapping digital early childhood, (in)between families and ECEC services

*Juliana Raffaghelli, Emilia Restiglian, Marco Scarcelli*

The recent aggressive entry of BigTech companies into school life has met with criticism and challenges, significantly shaping various educational practices and objectives (Rivera-Vargas et al., 2024). Educators and families get confused, but only in a few cases are they engaged in acts of further exploration, resistance, or digital activism (Jacovkis et al., 2022; Pangrazio & Mavoa, 2023). However, the phenomenon has received significantly less attention in the context of Early Childhood Education and Care (ECEC). From a sociological point of view, studies have already detected critical practices and issues in families' media consumption (Barassi, 2017, 2019), with key impacts on children's digital rights (Mascheroni & Siibak, 2021). However, Rivera-Vargas et al. (2023) have found that the educational stance remains problematic at the primary school level. Our team (Restiglian et al., 2023) conducted a recent study involving 15 interviews in Italy and found that the usage of BigTech platforms increasingly entangles relevant practices such as pedagogical documentation. On the other hand, we also found that families' evaluations, primarily focused on aesthetics or educational promises, rather than actual quality elements such as information clarity, educational value, data security, and privacy, impede a critical selection and consumption of child-focused apps.

Therefore, the objective of our study was to deepen the problem by mapping families' understanding of social media and platforms across the family space and the educational space. Our research, inspired by the study carried out by Vargas et al. (2023) in Catalonia, is based on a national survey (N = 2000) carried out in Italy between March and May 2023. We invited the families to self-report their knowledge and opinion on how to use social media and platforms at home. We also included their perceptions and concerns about technology usage in Early Childhood Education and Care, and the schooling system. The survey explored the parents' age, gender, geopolitical localisation (national), and digital competence to then investigate A) the experiences and knowledge about technology consumption at home and school; B) the general data privacy concerns with regard to the overall technology consumption by the family; C) the specific concerns about data privacy and children's digital rights, as well as the educators professionalism and the ability of the ECEC/school to deal with the problem.

In this presentation, we will focus on the results we got about the ECEC system (0–6 in Italy).

Based on the results, it was observed that parents' opinions on social media and BigTech are generally not particularly enthusiastic. They are also generally convinced about the relevance of adult supervision during the kids' engagement with technologies at home, though they also believe technologies (including AI-powered toys) can be an opportunity to develop skills for an increasingly digitised world. All in all, they believe that public-private collaboration might support better approaches to the type of technology we consume and that the support from educational institutions in this regard has been clear during the pandemics and less evident after this particular period. Specifically, they perceive that the ECEC system does not inform them about the pros and cons of adopting digital technologies, and that they have taken part in parental education or support (like labs) very rarely. Going deeper, we also observed that the level of instruction and the area of Italy (North-West, Nord-East, Centre, South) were connected to different degrees of digital competence. In addition, instruction and geographical localization were linked to a variety of approaches to social media and digital technology consumption. Moreover, it had implications with regard to the engagement and understanding of educational technologies' usage in the ECEC, as well as of digital and data practices by ECEC services, with complex nuances. We can confirm that a lower level of instruction leads to a lesser

understanding of ECEC technological approaches, even beyond the support provided during the pandemic. However, parents with higher levels of education also expressed dissatisfaction with the educators' professionalism in managing the appropriate use of educational technologies and platforms, as well as in safeguarding the rights of children when using these technologies.
Our findings have clear implications for the ECEC system in Italy: ensuring equitable access to ECEC services that include families' support to media consumption is key. Because of this, the quality of ECEC services needs to take into account the idea of co-educating to encourage critical digital literacies in families and, through them, in the youngest children, whose digital rights and citizenship are complicated by unsafe and naïve approaches to digital technologies. In this regard, policy investments must not neglect both pre-service and in-service professional development. This also also plenty of implications for the ECEC education services, whose careful approach to the topic of technology and media consumption can set the basis for a co-educational approach to learn to live well in a datafied society (Pangrazio & Sefton-Green, 2022), namely, not to or towards the families, but with them.

**Keywords**
family media consumption, early education and care, datafication, platforms, educators' professionalism, national survey

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**Digital platforms in education: views of Catalan teachers**

*Gustavo Herrera-Urizar, Mercedes Blanco-Navarro, Ainara Moreno*

Post-pandemic of COVID-19, the presence of educational digital platforms in the daily dynamics of schools is a consolidated fact that permeates all compulsory education. Such adoption, not exempt from criticism and challenges, has been extensively addressed by educational research in recent years. However, as Parcerisa et al. (2022) argue, there has been a lack of emphasis on pedagogical approaches and teaching practices stemming from the use of these platforms in that agenda. Therefore, the objective of this study was to analyze teachers'

perceptions of the use of educational digital platforms in primary and secondary schools in Catalonia, Spain. To do so, focus groups were conducted with teachers from both levels, whose transcription allowed, through content analysis, to explore connections between teachers' opinions, attitudes, and beliefs with broader social and educational aspects, based on the patterns and sequential relationships that unite them.

From the results, we can affirm that the integration of educational digital platforms in schools constitutes a complex process that poses challenges to teaching practice that exceed those specific to teaching and learning in digital contexts, expanding their scope of action to the protection of children's and youth's rights. Some of these challenges include ensuring equitable access to technology, fostering responsible digital citizenship, protecting student privacy in online environments, and combating the potential for distraction that these platforms can present.

In response to this, teachers express the need for critical initial and ongoing training that provides them with tools to ensure student learning and holistic development. Such training should encompass not only technical proficiency with the platforms but also the development of pedagogical strategies for their effective integration. This should include guidance on fostering online collaboration, critical thinking, and addressing potential pitfalls. Furthermore, teachers would benefit from professional development in navigating ethical dilemmas and safeguarding students' well-being within digital learning environments.

Overall, while educational platforms hold immense potential, their successful implementation cannot be separated from the need to empower teachers. Schools and policymakers must prioritize investment in robust training programs and support systems that enable teachers to confidently leverage digital tools while upholding educational excellence and safeguarding students' rights and well-being in the digital age.

**Keywords**

educational digital platforms, teaching staff, compulsory education

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**The influence of post-digitalisation among preadolescents: the new educational challenges**

*Alice Iannacone, Simone Digennaro*

The concept of "onlife" has emerged in the contemporary world, blurring the line between real and virtual domains (Floridi, 2014, 2015). Digital natives are continuously influenced by digital platforms, leading to a fusion of their online and offline realities. The impact of digital media on identity formation during their formative years is significant, as online interactions become more pervasive(Rodgers & Rousseau, 2022). The contrast between the real physical self and the meticulously created virtual personas that online users project can be described as 'dualism'. Individuals can use filters, editing tools, and sophisticated apps in the digital realm to present idealized versions of themselves and conform to societal beauty standards. Social media platforms that feature digitally altered and meticulously crafted depictions of bodies could cause a sense of detachedness from reality. The idealized digital personas may cause individuals to strive to achieve the impossible, chasing an unrealistic and often unattainable standard of beauty (Digennaro, 2023). In today's society, the external appearance is of utmost importance to people's self-esteem (Tiggemann & Barbato, 2018). While social media likes are a popular way for individuals, particularly teenage girls, to compare themselves with others, studies have shown that receiving positive feedback can lead to increased happiness (Chua & Chang, 2016; Meshi et al., 2013). It's crucial to consider the potential for a continuous cycle of modifying images on social media to meet beauty standards and attract more likes (Eshiet, 2020).

This study aims at a deeper understanding of the connection between digital usage, social media usage, and identity formation, focusing on body image and the real/digital duality.

Thus, the hypothesis is that social media use is associated with a desire to modify one's physical appearance to match idealized representations, leading to body dissatisfaction and a dualism between the real and virtual body.

The study involved 2378 Italian preadolescents through two self-administered questionnaires on social media use, body representation, and body image.
The study found that 99% of participants engaged in daily browsing of social media, with Instagram and TikTok being the most popular. Among them, 62.1% used beauty filters to enhance their aspect. Concerning body image, most participants showed slight to moderate satisfaction with their physical appearance, with a higher score for males (2.6 ± 0.9) than females (2.4 ± 0.8), which aligns with the results for the dualism (females: 1.4 ± 0.7; males 1.1 ± 0.8).
Overall, the use of social media is associated with a desire to alter physical appearance, which can result in body-image issues.
Body image is a complex and profound experience related to our physical embodiment. It includes various dimensions such as how people perceive, think, feel, and behave in relation to their body's appearance and function (Cash & Smolak, 2011).
The concept that body image is a pliable and modifiable human experience that can be influenced by external factors such as peers and media has been posited in the literature (Cash, 2012).
Educational institutions should provide digital literacy classes to increase risk-awareness and minimize false beliefs and detrimental influences (Iannaccone, 2023). Additionally, educators may develop pedagogical strategies to propose comprehensive programs that emphasise self-awareness and identity formation before preadolescent to prevent body image-related issues.

**Keywords**
body image, dualism, preadolescents, digital culture, digital literacy, pedagogy

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## SECTION: "Pedagogical documentation in the era of platforms: educational practices and dilemmas"

### Documenting early childhood in a data age: issues and reflections on privacy

*Emilia Restiglian, Juliana Raffaghelli, Monica Gottardo, Alice Boscolo-Bragadin*

Social media and instant messaging are extensively used in a child's culture that places importance on recording and sharing with parents. Educators are burdened by the difficulties presented by digital platforms, but it is important to consider contextual factors while seeking strategies to oppose and participate in political activities that might change the dominant position of edtech platforms. Examining the particular discourses and strategies around platformisation by early education experts is crucial for fostering both awareness and a reevaluation of professional and political influence. In this context, we present our initial step in “mapping data/digital childhood” in Italy. We conducted an investigation based on 14 individual interviews and one group interview conducted with educators in the Veneto area of Italy. Our topic analysis reveals that finding a harmonious equilibrium between technology-based documentation and children's privacy is a complex task. In addition, educators are advocating for regulations and further assistance for technology-driven programmes and activities that use technology in a deliberate and mindful manner to prevent any damage to children. Our results resonate indeed with the efforts at both the international and national levels to face the challenges to understand and address the impact of the Internet on children's rights. These efforts primarily focus on ensuring children's access to the Internet and protecting them from harmful experiences like cyberbullying and exposure to pornography (Swist & Collin, 2017). Multiple studies have shown that instructors exhibit varying views while using social media and instructional platforms. While certain individuals may exhibit enthusiasm and disregard for privacy concerns or data justice, others experience a sense of being overwhelmed and devoid of hope when confronted with the process of datafication and platformisation. They perceive themselves as being associated with a system that they may not necessarily align with, or worse, lack the requisite expertise or understanding to navigate this intricate phenomenon (Fontichiaro & Johnston, 2020; Raffaghelli, 2022).Given the circumstances, we argue that it is essential to comprehend the extent of autonomy that early childhood education and care (ECEC) professionals have in regards to digital transformation as a whole, as well as the specific occurrences of datafication and platformisation that they encounter (Mascheroni & Siibak, 2021; Swist & Collin, 2017). Studies on school education have shown that educators play a crucial role in challenging the normalisation of platforms and their economic models, which leads to private interests overpowering the

public domain of education (Jacovkis et al., 2022). One notable concern at this stage is the importance placed on recording and sharing the children's experiences and activities with their family (Falco & Kishimoto, 2022; Malaguzzi, 1998). Documentation is the systematic collection and use of various educational activities and materials to provide information about early education to the community (Malaguzzi, 1998). The Reggio Emilia Approach, which originated in the previous 30 years and was subsequently embraced by the Reggio Children Foundation, has become a well recognised emblem for utopian early childhood initiatives worldwide (Alaçam & Olgan, 2021). Policy makers and educators strongly endorse this practice because "rich documentation includes various viewpoints and makes learning visible to the learning community" (Australian Government Department of Education, Department of Employment and Workplace Relations, 2010, p. 37). In Italy, the concern to improve the quality standards of what is considered an integrated system (children aged 0 to 3 years and pre-school children aged 3 to 6 years) (Legislative Decree N. 65, 2017) is putting pressure to adopt pedagogical documentation as an approach to evaluation (National Commission, 2022). Therefore, the problem of understanding careful and appropriate pedagogical documentation selectively adopting digital technologies and social media platforms is compelling.
Based on our study, we provide suggestions to enhance the professional development needs of early childhood educators in a society that relies on data and is influenced by digital technology.

**Keywords**
documentation,  early childhood education and care, platformisation, datafication

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**Big Brother: the advent of IoToys**

*Silvestro Malara*

If Tisseron (2016) indicates precisely some practices for the use of the screen, interface-body-machine (Rivoltella & Rossi, 2019) in the 3-6-9-12 age group, today, the preliminary need is to tame these same screens

(Marangi, 2023) so that the entire educating community tries to embrace the call to still consider pedagogical attention as preceding and preparatory to technological competence. Governing the Technium (Cambi & Pinto Minerva, 2023) is the exhortation to the knowledge society to continue investing in the ontological educational possibility of the human generation and to rediscover the re-generativity of the educational act, even in the era of the *Internet of Toys* (Holloway & Mascheroni, 2019). IoToys can be robots, teddy bears, dolls, and watches and they all have in common the ability to connect to the Internet. As children play and interact with the toys, they can record different types of data, such as sounds, images, movements, and location. A world of internet-connected toys not only changes the very concept of playfulness, concerning *gamification* reflections (Bonaiuti et al., 2017) but also radically transforms the very concept of the environment.

Integrated System 0-6 and in the National Guidelines for Childhood Education Services as the third educator, is to be interpreted once again as a non-physical place of existence (Floridi, 2022), hyper-specified by microphones, cameras and location systems, multiplied, datafied, spatially re-contained in the screen and entirely haptically 'experienced'. The emergence is to understand the nature and potential of this non-place: the capacities and limits of an interconnected world, within which all the theoretical, methodological, and political issues of education, from motherhood to the implicit and explicit dynamics of learning, are remedied through Iotoys. The digital footprint imposes on the world of education a reflection on the datafication of the world of early childhood, which starts with a first feeding, dataised through sensors capable of measuring the infant's entire life; it imposes reflections on *sharenting* (Lancini & Cirillo, 2022), a new crisis between *sharing* and *parenting*, and on the privacy conditions of the individual himself, a man in swaddling clothes.

Can educational action still be considered a path of mutuality that finds in the subjects involved, parents or educators and children, the admission of the search for autonomy and freedom? Or must education regard itself as a control and homologation device that controls, influences, and determines the choices, and even the desires, of man, from birth? Again, within the pedagogical reflection, is the device of play with its educational paradigm still valid, as a privileged guarantor of learning and relational development, or have games and toys become biopolitical instruments of management and supervision of man? With a systematic review of the

scientific literature and the latest contemporary national research, the definition of good practices - educational and parental - for the age in which the dictator's eye is the eye-camera of toys, among the dolls and plush toys of home and life, will be highlighted through a tree of educational needs, connected to the problems raised by the research questions. Out of the literary and apocalyptic reference to Orwell's work, the objective tree will specularly allow the transformation of the technological medium, even when this is a toy, into the very achievement of a precise educational purpose, reformulating the previously identified negative perception into a positive one.
This type of diagrammatic analysis provides an opportunity to make the links between problems and educational practices evident and to effectively tribute the domestication of toys, screens, and technology.

**Keywords**
IoToys, datafication, early childhood

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## LABZEROSEI documentation: participatory, narrative, generative

*Simona Ferrari, Monica Guerra, Luisa Zecca, Michele Marangi, Laura Comaschi*

This contribution intends to reflect on the different aspects that characterise documentation in early childhood starting from the

experiences carried out in 2023 in LabZeroSei, a project implemented by the Municipality of Milan as a place of experimentation strongly connected with municipal services dedicated to children between 0 and 6 years old. During 2023, 354 workshops were held with children (N=3,612) and teachers (N=640), 495 workshops with families (2,313 children and 2,459 adults), as well as 8 training courses for pedagogical operators (N=368), and 4 dedicated to parents (N=50). The numbers render not only the quantitative breadth of the experience but also the richness of the practices experimented, and the possibility of triggering up-to-date reflections on the meaning and methods of pedagogical documentation in a data-driven era.

The paper will propose a focus on the results of the experimentation of the observational and documentary tools proposed within LabZeroSei (photographs, video recordings, photovoice, observational and reflective diaries, shared archives, and padlets) starting from the evaluations of these tools gathered through questionnaires and focus groups conducted with adults.

From the analysis emerges the centrality of some key aspects in working with children: the multimodal (Kress, 2010), and not so much multimedia, dimension of documentation; the centrality of the digital (Marangi, 2023), understood not only as a tool for recording or facilitating technological practices, but especially as a platform for exchange and comparison between the different actors involved (Santinello et al, 2022), consistent with the explorative and re-elaborative logics that are typical of childhood (Guerra, 2019); the possibilities of connection between synchronous (I observe and record) and asynchronous (I revise-reflect-re-elaborate) dimensions for a stratified and multi-voiced documentation. In particular, the narrative aspect of the documentation (De Rossi & Restiglian, 2013) played a key role, interweaving metariflexive and emotional aspects, without undermining the rigor of the approach and methods (Malavasi & Zoccatelli, 2019), but on the contrary, making it more coherent with the pedagogical and research-training objectives of LabZeroSei.

The research conducted made it possible to identify the core areas of work on digital documentation with operators of the 0-6 services and some critical issues to be addressed from a debate development perspective. Firstly, the centrality of a shared and sustainable privacy policy (Barassi, 2021) that allows both the protection of children in an increasingly data-driven society (Mascheroni & Siibak, 2021) and the possibility of creating meaningful and engaging documentation. Secondly,

the further development of the participatory and metareflexive dimension (Zecca, 2012) of documentation processes, which increasingly involve children themselves as active subjects and not only as passive objects of documentation.
It is precisely these two critical issues that push for a training accompaniment of educational staff centered on the ability to further refine the relationship between methodological approaches and technological devices, in a non-instrumental logic, updated to the possibilities offered today by digital, but attentive to the pedagogical and participatory dimension of documentation processes based on *digital literacy* and the conceptualisation of digital as a third learning space (Potter & McDougall, 2017).

**Keywords**
pedagogical documentation, multimodality, photovoice, digital literacy

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**The Montessori method and early and lifelong experiential learning in the digital society: current need or legacy of the past?**

*Grazia Romanazzi, Chiara Bellotti*

In recent decades, the advent of technology has pervasively impacted all aspects of our lives, from the private to the social, including the spheres of education and professionalisation, producing profound transformations in all areas of human existence.
Technology has radically transformed the way we work, relate, learn, and live on a daily basis, offering new opportunities and challenges that require continuous adaptation and critical reflection on the consequences of this and so much impact.
It is undeniable that digital technologies offer multiple opportunities for learning and cognitive development for children.
However, it is important to address with caution the excessive and dysfunctional use of such tools, which can lead to negative consequences on the mental health, social relationships, and emotional development of young children.
Here, we intend to deepen the analysis of early technological and media literacy, manifest in certain phenomena such as *window dressing* (Codeluppi, 2007), *genderization* (Lipperini, 2010; Oliverio Ferraris, 2008), and *eroticization* (Romanazzi, Farina, 2020) of an adultised childhood, in the face of an improvidently adolescentised adulthood (Corsi, Stramaglia, 2009).
In the above-mentioned oxymorons, the paradox of contemporaneity is revealed, in which two antinomic declinations of time, both subjected to media hypervisibility, are contrasted: the acceleration of childhood time, on the one hand, and the procrastination of adulthood time, on the other hand. An inauspicious and deleterious combination for all the generations involved, generating ‘con-fused’ (Romanazzi, 2022) and ‘sticky’ (Ammaniti, 2015) families, characterised by a sort of ‘horizontal diffusion’ of roles and physical and psycho-symbolic boundaries.
The result is an ‘adolescent family' (Ammaniti, 2015), crystallised in the images delivered to social networks that unite all the components in a single indistinct developmental phase: adolescence.

The mediatisation of childhood and family life has led to the declination of the so-called *networked family* (Autenrieth, 2018), in which the *media moms* and *digital dads* (Uhls, 2015) socialise, in virtual squares, the behavioral choices traceable to their parental style and, even, the most intimate anecdotes of their daily domestic life.
In this way, on the horizon separating the potential use from the dysfunctional use of the media, the phenomena of *sharenting* (Damkjaer, 2018), overuse and even media addiction from early childhood (Warella, Santi, Suryanto, 2022) emerge.
There is an urgent need, therefore, to recover the category of time as a “pedagogical variable”, as stated in the 'Pedagogical guidelines for the zero-sei system' issued by the Italian Ministry of Education (2021). "Time organisation is a key element for children's well-being, to encourage them to explore, to interact with others, to learn: extended time allows children (and adults) to live humanly rich experiences and to establish meaningful relationships" (p. 26).
It is necessary to return to children the slow time of perceptive-sensorial exploration that generates an authentic and active knowledge of reality, experienced and internalised in a personal re-elaboration.
Similarly, it would be desirable for adults to avoid depriving young people of the peculiarities of the developmental phase and, specifically, of the projectual tension towards a desired and searched-for adulthood.
In the context of early childhood, it would be appropriate to protect children "from devices that exclude from the outset manual/sensory experience and the gradual transition from an unconscious life to the ability to begin to master everyday reality" (Honegger Fresco, 2017, p. 7).
We propose, here, a pedagogical reflection on the effectiveness of the Montessori method and the principles of experiential learning (Dewey, 1973) even in the digital society, inhabited by predominantly sedentary children, if not exactly immobile in front of screens.
The Montessori educational proposal aims to respond to the need for an experience that begins in early childhood and lasts throughout life.
During early childhood, children are naturally inclined to exploration, play, and spontaneous work, as pioneered by Maria Montessori. Her insights into the plasticity of the infant brain and the importance of motor skills in learning are now supported by modern neuroscience findings, hence the idea of the importance of an environment rich in sensory stimulation and opportunities for interaction with the real world, rather than passive action on digital screens.

Manual work and exercise with scientific materials stimulate sensoriality, refine motor skills, and *materialise abstractions* conceptually, adding to physical and cognitive development and emotional and relational growth: "the hand is that organ, fine and complicated in its structure, which allows intelligence not only to manifest itself but to enter into special relationships with the environment: man, it can be said, 'takes possession of the environment with his hand' and transforms it on the guidance of intelligence, thus fulfilling his mission in the vast framework of the universe" (Montessori, 1999a, p. 108).
However, it is not a question of demonising technologies, but rather of adopting a balanced and conscious approach, integrated with practical and interactive experiences.
From this perspective, education must aim to promote the harmonious development of the mind and body, providing children with opportunities to explore, experiment, and create in an appropriately prepared environment.
In this way, the new generations will know and be able to face the challenges of the technological age with awareness, creativity, and resilience.

**Keywords**
childhood and digitisation, sharenting, media addiction, Montessori, experiential learning

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# SECTION: "Strategies for educational intervention in post-digital childhood contexts"

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

*Rosy Nardone*

Digital environments, and touchscreen media, increasingly characterise the everyday experience of childhood.
Due to their intrinsic immediacy and intuitiveness of use, they have increased children's access, even under the age of three, to the possibility

of playing with apps, watching videos, taking pictures, listening to music, and recording messages, especially in family contexts. It is often in these contexts that uneducative or unconscious uses develop, triggering what can be defined as the 'educational paradox': parents frightened and alarmed by the so-called *moral panic* (Cohen, 1987) from digital (Wark, 1994), who oppose the introduction of tablets and apps in the didactics of the 0-6 services, but often use them in their daily lives with little attention and critical-creative thinking.

Not only that, but connectivity in Italy has developed late and with wide territorial differences, giving a rather complex and problematic picture of inequalities in access and literacy across the country (Save the Children, 2023; Open Polis, 2020).

In March 2020, the sudden closure of the nurseries, pre-schools, and, in general, the 0-6 services, which abruptly interrupted the educational pathways of the groups of boys and girls, but not their need for relationships, highlighted these discrepancies, contradictions, and lack of a profound and proactive reflection on models of digital use with a view to educational empowerment. After the initial bewilderment, and overcoming many difficulties in finding the right tools, the personnel of the 0-6 services activated and experimented, on the national territory with more or less inhomogeneity, new channels of communication with families, boys and girls, putting themselves into play and experimenting new potentials for building links, interactions and learning through digital. The pedagogical culture of services for children is mainly characterised by a holistic approach and by environments designed to foster exploration, co-construction, and discovery, focusing on the curiosity of the child's gaze as the main driver of knowledge of the world and its complexities: this is why they represent today, more than ever, the most suitable contexts for exploring the links between the approach to technologies and other learning experiences.

As Montessori pointed out, the organisation of space, and the setting, are decisive elements in a child's learning. If well structured, they act as an additional educator, as contexts in which to explore oneself and the world with all the languages and tools available.

If thinking of oneself, therefore, within the opposition between adults and 'digital natives' does not contribute to building forms of alliances and new educational governance, what new roles can today's local educational services for 0-6 (from nurseries and kindergartens to libraries, toy libraries, and Family Centres) play in building a digital culture for boys and girls,

with a view to the right to *new media literacy* (Jenkins, 2010)? How can they be a 'guiding compass' on digital education also in the family, where contradictory models prevail, from the use of devices as shut-up toys or digital pacifiers used in any place and time to 'keep good and still' childhood, to the strictest prohibition as catalysts of every fear and bad effect on it?

Starting from the outcomes and meanings that have emerged from various research-actions carried out since 2015 (Nardone, Pacetti, Zanetti, 2016) and experimental projects, from which a University Continuing Education Course "Digital Media in the educational design of 0-6" was born, we want to propose a reflection on the possibilities of new relational processes between adults and children through the conscious use of digital technology, which represents a new form of storytelling and interactivity, to outline "guidelines" for the choice of the most appropriate APPs for the development and growth of children as citizens of their own time, as well as to encourage positive interaction modes with the touch screen.

While Law 92/19 introduced civic education starting from pre-school, dedicating the whole of Article 5 to digital citizenship, no system has yet been put in practice - except for isolated and scattered good practices - to respond to the needs and educational rights of children of virtuous initialisation to technological devices, from an integrated perspective, which expands and does not want to replace the five senses through which they know and relate to reality.

The perspective that is suggested is that of an educational mediation that puts childhood at the centre with all its rights and its hundred and more languages, freeing it both from prohibitionist cages and from naive enthusiasms that ride on the fashion of the moment, to recognise risks and know how to seize opportunities and build approaches whereby traditional tools are not antagonistic to digital devices: the book is not to the ebook, the toy to the app, the playground and the park to the tablet. Because technology is not an aberration, but a revelation, and it brings out a multitude of ancient things. Because, to paraphrase maestro Alberto Manzi, it is never too early. Preparing for a 1996 conference on educating to think, he wrote 'Is it useful to send the child to kindergarten or not? (...) Well, when faced with any situation, the child reflects, analyses, and tries to give himself an answer. His capacity for reasoning begins immediately. (...) One is not born intelligent. One becomes intelligent. (...) A child must be encouraged to be able to see, to be able to observe, to reflect on

things, to reason about things... in other words, to think, to do, to speak... So, what experiences? All possible ones.

**Keywords**
childhood; services 0-6; Apps; parenting; media education

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## Transformative Workshops: Strategies for educational intervention in post-digital childhood contexts

*Emilia Restiglian, Juliana Raffaghelli, Monica Gottardo, Paola Zoroaster.*

Italy's rich history of pedagogical documentation, rooted in the Reggio approach, emphasizes documenting important events to enhance reflective learning and make educational processes transparent and evaluable (Edwards et al., 1998; Giudici et al., 2001; Biffi, 2019). In this

context, educators reexamined documentation practices in light of technological advancements, revealing economic and cultural disparities among families. The COVID-19 pandemic has significantly increased the reliance on technology in education, leading to changes in teaching methods and interactions with children and families. However, educators often lacked the skills to effectively use technology, relying on unregulated social media for educational communication and recordkeeping (Restiglian et al., 2023). This has led to varied usage patterns of technology, necessitating updated instructional designs and tools. The situation is particularly dire in nurseries with limited state oversight and significant variability in educational quality. European regulations, such as the AI Act and GDPR, aim to protect identities and ensure transparency in digital activities, though the Early Childhood Education and Care (ECEC) system also requires conscious, circular approaches (European Parliament, 2016; 2023). The ECEC's integration into lifelong learning highlights the importance of addressing unconscious decision-making and appropriate technology use in education.
Educators' expertise is crucial in navigating these technological and social changes, which can be overwhelming (Raffaghelli, 2022). Therefore, prioritizing transformational processes in ongoing education and training through a research-integrated formative approach is essential. This method can reveal contradictions in technology use and enhance educational practices for all stakeholders. Technology, when used effectively, can simplify recordkeeping and improve education for children, parents, and teachers.
An effective method for facilitating continuous and transformative training is the "ChangeLab" approach from the University of Helsinki, widely used in socio-sanitary and educational research (Sannino & Engeström, 2017; Morselli, 2019). ChangeLab involves several sessions where experts present scenarios to foster critical and goal-oriented discussions. Our study involves educational personnel from three ECEC institutions in Rovigo, focusing on managing educational documentation using technology tools for both internal communication and family engagement. The project was completed in March 2024, but it also engages a phase of follow up with “art-based” inputs based on the creative word carried out by the participants. Overall, the final object of transformation has to do with the revisiting technologies usage with regard to pedagogical documentation to connect with the families.

We carried out three sessions for each of the engaged ECEC institution. These sessions occurred outside regular hours, mixing in-person and virtual meetings, and utilized tools like posters, brochures, and apps like Mentimeter and Padlet for discussions. Data collection involved audio recordings and photos, with participants' consent, and analysis follows ChangeLab's discourse and multimodal analysis principles (Sannino & Engeström, 2017).
Our ChangeLab sought to create the space for reflection and to put the basis for transformation, adept at navigating a technology-driven society. Beyond just adapting to digital challenges, we aimed at fostering professional growth, and maintaining child-centric practices. This approach should contribute to build the quality of what is called an integrated 0-6 year system (Ministerial Decree no. 65/2017). Also, our research could inform curriculum development for the Education Science degree at the University of Padova. This exploratory study aims to draft guidelines for technology use in nurseries, providing policymakers with insights for informed decisions on digital education practices, aligning with aspects of the DigiCompEdu framework (Redecker & Punie, 2017).

**Keywords**
ChangeLab, pedagogical documentation, technological tools, reflection and transformation

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**Digital and 0-6: Innovating Educators' Competences**

*Marina de Rossi, Cinzia Ferranti*

*Key aspects of the literature review*

Digital competence is one of the educational and training priorities induced by the New/Net/Knowledge Economy to overcome new forms of digital divide (EU Council Recommendation, 2018).

Currently, there is an increasingly significant connection between the themes of the DigComp 2.1 framework (Carretero et al., 2017), updated with DigComp 2.2. (Vuorikari et al., 2022) and the goals of the 2030 Agenda (UN, 2015). The reflection concerns the integration of digital technologies in education to foster the quality of education in terms of sustainability, accessibility, and inclusion (Goal 4) and to combat poverty, including educational poverty (Goal 1).

Overcoming this critical issue requires educational processes that are essential for the development of active and responsible citizenship, starting in early childhood (Su & Yang, 2023).

In fact, in 2019, the European Commission's Eurydice report reiterated that pre-primary education is a key means to help combat educational disadvantage, focusing on early intervention programs in 0-6 services. Based on these perspectives, a survey was conducted among the educational staff of 0-6 childcare services within the Territorial Pedagogical Coordination of the City of Parma.

*Problem under investigation or research question*

The areas of the DigcompEdu (Redecker, 2017), referring to educators' competences, define a comprehensive framework of competences for educators and teachers in the use of digital resources for educational purposes: professional involvement and enhancement (Area 1); creation and sharing of digital teaching resources (Area 2); management and organisation of technologies in teaching-learning processes (Area 3); use to improve assessment practices (Area 4); use to foster processes of inclusion, personalisation and active involvement of students (Area 5); and development of creativity, responsibility, personal well-being and problem-solving through the use of digitally mediated information and communication (Area 6).

However, the recent systematic review (Su & Yang, 2024) still highlights persistent critical issues of digital skills training in educators, although some interesting changes have become apparent in the aftermath of the pandemic experience. It is important to continue doing research in this area for the improvement of initial and continuous training strategies.

The research question (RQ) of this study is: after the pandemic experience, what is the commitment of the 0-6 educators in service in the integration of digital technologies in the different areas (teaching, communication with families, documentation, professional networking) of the educational profession?

*Method*

Between 2018 and 2019, the University of Padua implemented a research-training pathway for the development of digital innovation addressed to the territorial pedagogical coordination of 0-6 services (TPC of Parma), which then generated training actions also for the educational staff of early childhood services and schools (Ferranti & De Rossi, 2022). Among the various activities proposed in this path, there was a first survey in 2019 and a second in 2023 addressed to the staff of the 0-6

services referring to the competences of the DigCompEdu framework (Redecker, 2017).
The 2023 survey aims to survey educators' and teachers' perceptions of their ability to use digital tools, their usefulness, frequency, and patterns of use with respect to some specific dimensions: a) educational work with children; b) educational documentation; c) communication with families; d) sharing and networking with the professional community.
A structured questionnaire with a self-anchoring scale of 1-5 (disagree, very agree) with descriptive data analysis was used.
Study results
The first figure of interest is that in the 2023 survey, 95.6% of the educators interviewed responded (N=176 out of 185 questionnaires distributed).
55.7% are educators of 0-3 services, 26% are preschool teachers (3-6) and 18.2% are part of integrated 0-6 services.
27.8% said they had attended specific training courses on the use of technology promoted by their institution between 2020 and 2022, while 42% said they had attended generic training courses on the use of technology, including self-training using offers on the web. The remaining 30.2% had no training at all but tried to practice autonomously the use of some tool they considered useful for their teaching work.
81.8% say they use their devices to prepare material for teaching activities; 23.9% propose teaching activities in the section.
The item concerning the use of educational apps involving children shows rather poor results: M=1.78; SD=1.01; Mo=-1. 24% of the answers were at level 3 and only 8% at the higher levels (4 and 5); 25.6% of the educators and teachers state that they propose apps to children a little in their activities and 52.8% do not at all.
The use of digital technologies to develop digital skills in children is considered on average useful. The answers to the item show results concentrated in level 3 (42.6%), while the answers at the higher levels of the scale are lower: 15.3% (level 4) and 7.4% (level 5); the remaining 24.4% of the respondents affirm that it is not very useful to integrate digital technologies in educational work with children (M=2.85; SD=1.04; Mo=3).
The same trend is also found for the second group of items that refer to the perception of the usefulness of digital tools for the enhancement of certain areas of learning (M=2.93; SD=0.99; Mo=3).

After the pandemic period, digital documentation practices increased (92.6%): a high percentage of respondents declared that they use technological tools to document their educational work with children (levels 4 and 5; M= 4.20; SD= 0.90; Mo= 5) and to communicate with families (M=3.80; SD=0.99; Mo=4).
The last items for which we report data refer to educators' and teachers' belief in the usefulness of digital technologies for service design related to the territory (M=3.82; SD=0.91; Mo=4) and for facilitating communication with families (M=3.80%; SD=0.99; Mo=4).
In particular, the use of technology is used to communicate with families through the use of service-provided platforms or confidential social channels, which multiplied during the COVID emergency: 34.7% (level 3); 26.7% (level 4), and 15.3% (level 5).
Regarding the belief in the usefulness of integrating digital technologies in one's work in relation to one's professional development, the trend of responses is positive: M=3.67; SD=0.97; Mo=4.

*Implication and conclusion*
From the data that emerged from the 2023 survey, it emerges that the perception of educators and teachers on the use of digital technologies is a process that is still evolving, both because of direct work with children and because of the centrality of the role of services as a space for dialogue and cultural growth for families and the territory.
However, there seems to emerge a profile of educators who are not yet fully versed in digital innovation on a practical level, especially in didactic design integrated with digital and acted out in their work with children.
The analysis of educators' and teachers' beliefs seems to encourage future steps toward digital transition with regard to the qualification of educational interventions and community processes, both professional and networked.
It can be deduced from this that the sustainable perspective goes towards intensifying the training of educational personnel as a stimulus and accompaniment of a paradigmatic change aimed at connecting the educational profession with the social instances and evolutionary processes of child education.

**Keywords**
early childhood education, digital educational technologies, professional development, community development, digital competence for education

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## Building digital competences from early childhood: the first steps of the project research

*Cosimo di Bari, Claudio D'Antonio, Ester Giamberini*

In recent decades, the spread of digital technologies in daily life has introduced the presence of screens into childhood life as well. Despite the recommendations of the American Academy of Paediatricians and other

studies on the subject, the use of technological devices frequently occurs at an early age, with high exposure times and without adequate adult accompaniment. Based on these considerations, the PRIN Di.Co.EACH has been carried out since October 2023. - Digital skills in early childhood: training parents and education professionals to promote conscious, critical, and creative uses of digital media, with the participation of the University of Florence, the University of Bologna, and the University of Rome La Sapienza.

The project aims to foster interdisciplinary research (combining medical, pedagogical, psychological, and sociological perspectives) to enrich the literature and promote among parents, educators, and teachers a greater awareness of the risks and opportunities of the presence of electronic devices in the lives of children, promoting approaches that are conducive to the early acquisition of digital skills.

The actions included in the project are:

- A *Literature Review* focused on digital competences in early childhood;
- The production and dissemination (between May 2024 and July 2024) of two questionnaires, to be administered respectively to parents and to educators/teachers of the 0-6 services, aimed at collecting data on the presence, habits, and uses of digital technologies by children in 0-6 age group;
- Conducting focus groups with parents, educators/teachers, and paediatricians, to understand their perspective on the habits and practices of children's use of digital technologies within families and educational services;
- The implementation of research-action paths (in the second year of the project), with educators and teachers, dedicated to the collective design of interventions promoting information and training initiatives aimed at parents, to encourage more aware and more creative use of digital tools;
- The organisation of *Family Labs* aimed at parents and children to explore the risks and potential of digital.

Among the project's objectives is the promotion of an approach centred on children, both their attitudes and their potential. It is also intended to develop a focus on the quality of activities carried out and content through digital technologies.

At the same time, to promote the practice of accompanying children during the use of digital tools, leading (gradually with age) to forms of

self-regulation concerning time, place, and content. During the second year, the educational services and researchers involved will be made active protagonists in the task of raising awareness, informing and training families on *Media Education* issues, in particular about the themes of *sharenting* and the conscious use of tools, as well as in the selection of contents. The project also aims to formulate and disseminate pedagogical-pediatric guidelines addressed to families and staff of educational services to start acquiring early digital skills from an early age.
The intervention aims to present the first research results.
The review of the literature around the concept of digital competence in early childhood seeks to investigate whether there is any research on the international scene that addresses the topic of digital competence in the 0-6 age group and, where present, to understand what contexts and what issues are emerging.
About qualitative research, the perception of the various actors regarding the presence of the digital in children's lives:

- The experiences of parents, educators, teachers, and paediatricians concerning digital technologies and their uses, both in home contexts and at the crèche and pre-school;
- Their observations on the use of digital tools in early childhood; with particular attention to: tools (TV, Smartphone, Tablet, etc.), timing, rules, and contents (readings, multimedia narratives, Apps, etc.)
- Their concerns and/or fascinations about the use of tools in the 0-6 contexts;
- Their emerging needs with respect to their educational action towards children in the 0-6 age group.

**Keywords**
digital Competence, media education, parenting education, services

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## SECTION: Poster

### The use of Social as a tool to share knowledge about childhood with families and communities

*Marika Abolis*

The Digital Poster presented reports methodologies and results on how Bellesini, a Trento-based social cooperative, has used Social in the Trentino educational services in which it operates, and how these can be a tool for reflection and sharing the sustainability goals identified according to the 2030 Agenda to Promote Social, Economic and Environmental Sustainability.
Since 2020, the Bellesini cooperative, which manages around fifteen nurseries in Trentino, has made a significant commitment to achieving the 2030 Agenda Goals. The annual educational plans have been reworked in a pathway that extends throughout the year, offering differentiated experiences to children, their families, and local communities. The World

Days have been identified as fundamental occasions to explore key themes that stimulate reflection and activate initiatives.
The Trentino region, with its small communities scattered throughout the territory and fragmented, does not offer many opportunities for reflection and sharing of sustainability goals. These communities, immersed in the beauty of Alpine landscapes, are sometimes distant from larger and more dynamic urban centers, thus limiting access to resources and opportunities for dialogue and active participation.
In spite of this, an encouraging trend emerges: young families show a growing sensitivity towards sustainability issues, precisely because they see their connection with the future of their children. This interest is therefore not only a reflection of the growing awareness of environmental and social problems on a global level but also of the desire to create a better and healthier environment for future generations. Concern for their children's quality of life drives these families to question solutions and methodologies consistent with sustainable development. In order to offer food for thought, share its objectives, and activate participation in the initiatives promoted in the territories, Bellesini has implemented the use of social channels by activating the Facebook and Instagram platforms.
The regular publication of events, with the clear identification of the objectives to which they refer, offers families the opportunity to reflect on sustainability issues. These can refer to environmental aspects such as water, land, forests, and biodiversity days; social aspects such as autism awareness days, equal opportunities, and linguistic diversity; but also economic aspects such as energy saving, recycling, and sustainable food initiatives.
From the very beginning, the cooperative has activated different strategies to intercept different stakeholders:

- Regular POST publications highlighting events related to the Agenda Goals, with short reflections accompanied by videos and images.
- STORIES promoting activities and events in the area, to actively involve families in interesting initiatives dedicated to sustainability.
- Three ONLINE APERITIVIES per year, i.e. opportunities for discussion led by a psycho-pedagogist from the Cooperative, open to families, dealing with topics such as diversity education, equal opportunities, managing limits, and the use of media in early childhood.

There has been a steady growth in participation in the online initiatives proposed by Bellesini, but this has also led to good participation in the in-presence initiatives.
In addition, numerous initiatives shared by the local communities and territories were activated, with the educational services as active protagonists.
Families in the service satisfaction questionnaires highlight the need for opportunities to discuss educational issues and the relative appreciation for the initiatives proposed.
It can therefore be said that the synergic intertwining of actions on social media, documenting educational activities and initiatives, and meetings for active sharing and discussion, represents an opportunity to build a solid and collaborative network between families, local communities, and educational services. This synergy fosters the exchange of knowledge, experiences, and practices, paving the way for new ways of promoting sustainable education and building a more conscious and responsible future for future generations.

**Keywords**
kindergarten, nest-family interaction, active participation, digital communication, digital community building

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## Educators' digital skills in 0-3 services: Focus on nursery-family communication in the Veneto region

*Noemi Lucchi*

The purpose of this research is to investigate and explore the digital skills of educators employed in early childhood education services in the Veneto region. At a time when technology is present in every aspect of personal and professional life, the primary objective is to examine whether educators working in 0–3 educational services are adequately familiar

with technologies, how they employ them, and whether they consider themselves adequately competent to use them in their work context. To analyze this issue, the European framework adopted is the 2017 DigCompEdu (Digital Competence Framework for Educators). The focus of the research is on communication between the daycare center and the family, with particular attention to the use of a specific application: Kindertap. Through a qualitative approach, the research employs the use of two separate questionnaires as a survey instrument: the first is aimed at educators who adopt the application under consideration to communicate with families, while the second is aimed at those who use a different methodology of communication. The ultimate goal of this research is to understand the importance and necessity of digital technologies and skills for educators working in daycare settings in the current social context. It is aimed at understanding the challenges and opportunities arising from the integration of technologies in the early childhood educational setting, thus contributing to the training of educators who are more competent and prepared to meet the evolving needs of the digital world of today's times.

**Keywords**

early childhood, digital technologies, digital literacy, communication

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**Early childhood in the post-digital era: documentation practices and professional development perspectives among social and educational educators (EPIs) and educational services**

*Alice Boscolo Bragadin*

*Research Topic*

The purpose of this thesis is to analyze and offer a critical perspective with respect to the use of technologies for educational documentation within early childhood services in the Italian context, through empirical evidence. In the paper, infrequent but necessary topics for educational professions will be investigated, starting from educational documentation up to the use of applications for sharing material online.

*Research Questions*

- What are the critical issues related to the technology habits of children 0-6 in the Italian context? How do families perceive and act on these critical issues?
- How do educators see the problem, as professionals who could intervene to prevent risks and provide support to develop agentic approaches to technologies?
- What kind of educational approaches and materials are needed to support families in dealing with the changing technological landscape?

*Research methods and tools*

Longitudinal qualitative research (QLR) was conducted through a survey of design, documentation, and evaluation practices in Early Childhood Services. This survey activity was based on a panel of 15 semi-structured interviews conducted by the Project team and aimed at a representative sample of Early Childhood Educators (EPIs) with the purpose of learning about the Nursery Services in the Veneto region. A “Codebook,” or code tree, was created, grouping all the concepts and evidence collected from the respondents. The second phase of the research involved the use of codes and child-codes to group the evidence collected by the respondents and to facilitate the development of interpretations. Finally, the third stage involves monovariate and bivariate comparisons of the collected data by combining various categories of analysis and sample types, for example: Province, Type of service, Type of funding, Size of municipality, and Work experience.

*Analysis of results*

What emerged from the analysis of the interviews is that educators see educational documentation as a source of parental accountability to give insight into the service and educational practices carried out. In most cases, interviewees value the use of technology both for sharing documentary material with families and for monitoring the child and the strategies implemented. Documentation, therefore, is only possible if there is good educational planning at the base that aims to identify significant moments in the child's growth path, trying to connect them into nodes of meaning and then moving on to the narration of the same through technological tools.

*Implications of the study*

Among the limitations of this research is the impossibility of generalizing the data within the Italian population, not allowing for a comprehensive reading with respect to the problem analyzed. However, this thesis project can be a springboard to initiate new research throughout Italy with respect to the issue of educational documentation and child privacy within and outside educational institutions. Professional development programs should offer educators the opportunity to explore the pedagogical value of tools while assessing the influence they may have on children's learning.

**Keywords**
digital childhood, digital technologies, educational data science, privacy

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**Technological evolution and early childhood: a survey on the use of digital applications and intelligent toysl**

*Gloria Sartori*

The paper analyses how in today's society, technological development and its high use is exposing early childhood to considerable risks. The analysis of the literature, consulting the texts and articles of the most important authors (Barassi, 2020; Barassi, 2021; Ranieri, 2011; Ranieri & Manca, 2014; Tisseron, 2013), highlights a great deal of concern regarding both the timing and quality of exposure, as well as the tracking of data and the violation of children's privacy. This problem is entirely new and for this reason, has not been sufficiently addressed in education. The aim of this thesis is to analyse, from empirical work, a benchmarking survey of 30 apps; available in the Google Play store that can be found in the ‘children's’ category in the ‘up to 5 years old’ age group aimed at pre-school children that can be used as first-time users with parental support.
Next, the FABA case study was considered, a storyteller dedicated to children aged between 0 and 7 years that through listening to stories and songs allows children to stimulate their imagination. The survey showed

that the apps have a low quality with respect to the processing of personal data and the ethical use of data. While the case analysis showed convergent results. The case study emphasised that children can learn and have fun even without the use of digital apps.

**Keywords**
early childhood, technology, smart games, Apps

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## Learning to parent in a data-driven society: the impact of technology on parenting today

*Giulia Santi*

*Social issue under investigation*

Nowadays, we find ourselves to be active citizens of a data-driven society where a large part of our actions take place within social media. The data-driven citizen knows how to make the most of the development of technology in his or her daily routine, thanks to which he or she has access to an infinite amount of information and this enables lifelong

learning. Undoubtedly, this development has led to numerous benefits, but incorrect use can confront adults with numerous risks and dangers of which they are often unaware. What lies behind this great development is the frequent datafication and profiling of one's personal data as a result of using new technologies, especially social media. Nowadays, citizens are no longer in control of their personal data as once entered, they are processed in the form of digital profiles and passed on to third parties for purely commercial purposes. This is a very relevant social issue that the following paper aims to investigate how today's parents are behaving towards this reality and in particular how much they are actually aware of it.

*Methods and tools of investigation*

Through a case study consisting of empirical research carried out in two stages, an attempt was made to analyse pregnancy monitoring apps. Such apps are to all intents and purposes tools responsible for the datafication of children as they profile information even before their birth. In the two phases of the empirical research, an attempt was made to identify the most frequently used apps from a non-probabilistic convenience sampling, their impact on everyday life and the knowledge of the parental figures regarding the limits and risks dictated by the use of these technologies in terms of ethics and data use. Each phase of the empirical research, while both pursuing and contributing to the achievement of the investigation objectives, consisted of different methods, tools, strategies and timeframes. In the first phase, the use of a questionnaire created with the ‘Google Forms’ programme was adopted as a data collection tool, while in the second phase, a semi-structured interview was used. Following this survey, a careful Benchmarking analysis was adopted to identify the different data profiling systems by the developers.

*Case Study Results*

The results obtained show how little information is being provided on the important social issue presented, which instead needs to be given proper attention. What is lacking is the intention to be able to guide others to a conscious use of the technological devices that govern our daily lives, as well as greater protection at the regulatory level with regard to one's personal data entered into the various digital platforms. Everyone has the

right to be able to control and manage their sensitive data, and minors must be protected from this.

**Keywords**
datafication, parenting, App, sharenting, technology

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## Conclusions: Digital childhood, exploring future possibilities

*Juliana Raffaghelli, Emilia Restiglian, Marco Scarcelli*

Our Data Child Map 2024 conference would like to become a space for reflection and sharing that is enlightening and transformative at the same time. We are aware that addressing the crucial intersection of childhood, education, and technology in our post-digital society is a challenge for all of us as current researchers and professionals, or as prospective educators. We are grateful that the University of Padua has made this gathering possible through the research funds BIRD, based on a departmental effort (in our case, from the Department of Philosophy, Sociology, Pedagogy and Applied Psychology). Bringing together an impressive array of scholars and practitioners these two days; and sparkling deep insights and innovative solutions to the challenges and opportunities presented by digital technologies in early childhood education, is for sure a first step in the long way to build a mature approach to the problem in the Italian context.

The keynote speakers set the stage with thought-provoking discussions. Luci Pangrazio's exploration of digital parenting in the age of datafication was a standout, highlighting the complex navigation parents must undertake to balance digital opportunities with privacy concerns. Her concept of "data assemblage" resonated deeply, emphasizing the intricate web of interactions between interfaces, algorithms, and data infrastructures that shape children's digital experiences. This keynote will for sure be a powerful reminder of the need for informed and ethical digital parenting strategies.

Exploring the problems through conversation has been also a key for us, the DataChildMap team. during all these months working together. Therefore, we wanted to engage Maria Ranieri and Giovanna Mascheroni, two outstanding scholars working in Italy to the world, to our conversational space. Maria’s work in the area of educational technology is critical in our national context, for she is engaged in developing several strategies relating the role of educators with regard to emerging technologies. Giovanna Mascheroni's reflections on the impact of digital media on families and children provided a holistic view of how datafication influences everyday life. Her call for balanced, ethical approaches to safeguard children's well-being while leveraging technological advancements was both inspiring and essential for guiding future research and policy. Hence, closing our conference with Pablo Rivera Vargas is celebrating their original work on digital platforms in Catalan schools, through which they inspired our research. They highlighted the urgent need for privacy and data protection in educational settings, moving beyond the cautionary tales. With his field research, they have underscored the importance of creating equitable digital ecosystems and developing comprehensive educational policies to support children’s rights. So we are grateful to them for being with us and generously supporting our work, making it possible to reach local audiences. Indeed, our conference will count with the presence of educators and students from the UNIPD, whose interest about the problem will be triggered, but also, could just start with this encounter.

We are also grateful with those researchers and professionals whose hard work was shared through the conference. Works like those of Giuseppe Liverano, whose discussion on the integration of AI in preschool education was both exciting and cautionary. Valentina Bertoldo, and also

Rosy Nardone's research on digital media use among children and parents provided valuable insights into the challenges and opportunities of managing digital technologies at home. Alice Iannacone and Simone Digennaro's study on the impact of digital media on identity formation among preadolescents was particularly poignant. Silvestro Malara's discussion on the advent of IoToys provided a fascinating look at the implications of Internet-connected toys on early childhood education. The conference's focus on participatory documentation practices was beautifully illustrated by Simona Ferrari and her team's work on the LabZeroSei project in Milan, with experiences about documentation practices involving children, families, and educators showcased the power of collaborative approaches in early childhood education. Similarly, Marina de Rossi and Cinzia Ferranti did an incredible job investigating how digital competence needs to be explored and developed in early education settings. More broadly, Romanazzi & Bellotti delved on the pedagogical method that belongs to Italy by tradition, but that is an ever-green space of reflection about practice and quality in the ECEC sector. In a relevant way, our conference was enriched with contributions from relevant national projects like the PRIN Di.Co.EACH (Digital skills in early childhood: training parents and education professionals to promote conscious, critical, and creative uses of digital media) with the participation of the University of Florence, the University of Bologna, and the University of Rome La Sapienza, presented by Di Bari, D'Antonio e Giamberini.

We were also extremely lucky to count with young, skilled collaborators that offered to the conference their fresh perspectives on an area they are passionately interested in. We refer with this to the work of Abolis, Lucchi, Boscolo-Bragadin, Sartori, Santi, and the amazing support and creative work of Crudele, Gottardo and Zoroaster. To them, our gratitude for their commitment and professionalism.

Overall, we hope these days will be the opportunity to generate a rich tapestry of insights, research findings, and practical solutions. But it is not only about the present. Possible futures, through an imaginative effort, should be a continuous effort that accompanies the rigor of research and the creative power of professional practices. The conference underscores the urgent need for a collaborative approach to move forward from pure fascination or simple rejection with regard to the complex emerging

technologies. And this is only possible through imagination of what we can do or can be, beyond the given information. This is, in simple terms, a *human generative* approach, to ensure educators professional development and families critical literacies. We need contextualised, just and critical approaches to technologies more than ever, but these develop at a slower pace than the fast technological track. Our human power is based on our ability to do things together, which is also thinking together. Future-led dialogue among educators, families, and policymakers, could set the basis of what we need now to reach the imagined scenarios. We, as conference organisers, hope this will be a step in the way for a more informed and equitable educational landscape in the post-digital era, amidst the present complexities of a data-driven world.


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