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CHILDREN, YOUTH AND MEDIA: CURRENT PERSPECTIVES
CRIANÇAS, JOVENS E MEDIA: PERSPETIVAS ATUAIS

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Children, youth and media: current perspectives
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Over the past two decades, there has been a surge in research about the relationship between children, young people and the media, in terms of the number of studies produced, topics addressed and methodologies used. Due to its multidisciplinary nature, this area has affirmed its position in the field of Communication Sciences and has marked the scientific agenda and inspired public debate about the impact of the media on the lives of children and young people and how they use and appropriate information and produce media content. The digital age has created new media and platforms and generated a greater diversity of content, with children and young people using different ways of access and distinct consumption and communication practices. This situation has generated new research challenges, raised new topics and offers new clues to study the media world and its action on the identities, cultures and rights of children and young people.

At the time that this journal is being prepared and launched, the world is confronting the Covid-19 pandemic that has obliged people to spend weeks confined in their own homes. For many people, digital screens have been their main windows on the world. It is highly probable that children and families have spent yet more time in front of screens – to entertain themselves, talk to family and friends, from whom they are now distanced, and conduct their school activities, now provided via digital devices and in some countries, such as Portugal, also via television. Suddenly, awareness of digital inequalities has been revived, in terms of basic questions of access.

The experience of the Covid-19 pandemic has stimulated new avenues for research, in line with previous studies, while certain topics – such as social uses and parental mediation – have become even more relevant.

Current empirical evidence indicates that younger children are drawn to digital devices because their ease-of-use allows them to engage with their favourite apps and websites without the need for adult intervention, which engenders a personal sense of

agency, achievement and control over technology (Holloway, Green & Love, 2014; Neumann, 2014). Studies indicate that use of educational apps by children aged 2-3 helps them acquire pre-literacy skills (Troseth, Russo, & Strouse, 2016). Similarly, frequent use of apps that offer drawing, painting and shape-building tools has been found to enhance creativity and advanced motor skills among children aged four to five (Muis, Ranellucci, Trevors, & Duffy, 2015; Neumann, 2014). In both cases, the positive feedback provided by the apps during successful task completion has empowered children's learning processes – by increasing their sense of competence, independent accomplishment and self-worth (Muis, Ranellucci, Trevors, & Duffy, 2015; Neumann, 2014).

However, recent studies have also raised concerns about the potential negative outcomes of such digital devices on the development of younger children. One primary issue addresses parents' tendency to use smartphones and tablets as "pacifiers" or "shut-up toys" – i.e. they give mobile devices to children to keep them occupied, calm them down, as a reward, or as a disciplinary measure (Holloway, Green, & Love, 2014; Kabali et al., 2015; Wartella, Rideout, Lauricella, & Connell, 2013). Scholars argue that habitual use of digital devices to calm down children may disrupt the development of internal self-regulation mechanisms. Furthermore, intense engagement with interactive apps may displace language – and play-based interaction with caregivers, siblings or peers (Radesky, Schumacher, & Zuckerman, 2015).

Attention to long periods of use has also marked studies on the mediatisation of childhood, in terms of the ways that media content and platforms influence all aspects of children's lives – from personal development to social life (Krotz, 2007). A notable longitudinal study in this context is the research by Paus-Hasebrink, Kulterer and Sinner (2019) that followed 18 Austrian children and their families from disadvantaged social backgrounds, over a 12-year period. The study not only analysed the ways in which the media were present and used between childhood and late adolescence; it also analysed the way in which parental mediation has been marked by objective conditions of existence (*options to action*), subjective reading of these conditions (*outlines for action*) and cognitions and motivations to act (*competences for action*). Observation of the mediation environments between Portuguese families separated by two decades has also offered certain clues about the way that digital media has become a constitutive part of doing family. A comparison between families with young children in 1996, and families with young children twenty years later, has revealed that there are more parental mediation strategies, which seem to encapsulate children in a confident bubble of protection that prolongs childhood imagery and the associated romantic values (Ponte, Pereira & Castro, 2019).

A significant component of parent-child media behaviour consists of strategies applied by parents to mediate media use by their children. Until recently, the three main strategies identified in the literature have been *restrictive* mediation, in which parents set rules for media-use time and content selection; instructive mediation, including conversations about the content viewed, sharing of explanations and emotional responses and expression of critical attitudes towards the media; and *co-viewing*, in which parents

consume media together with their children (Lemish, 2015; Nathanson, 1999; Pereira, 1999; Valkenburg, Krcmrar, Peeters, & Marseille, 1999).

With the advance of digital media and its growing presence in children's lives, researchers have begun to explore new mediation strategies. While restrictive and instructive mediation continue to encompass all media, co-viewing has expanded to become *co-use*, including all forms of media-related activities. One innovation has been the inclusion of two new mediation categories - *supervision* and *technological* mediation. *Supervision* includes parents' attempts to remain close to their children when they engage in media use, keeping an eye on the screen. Parents who apply *technological* mediation help children acquire media skills (Li & Shin, 2017; Nikken & Jansz, 2014; Nikken & Schols, 2015). Digital media has also advanced the introduction of *participatory learning*, suggesting that parents and children use such media to interact and collaborate (Chiong & Shuler, 2010; Nikken & Schols, 2015; Schofield-Clark, 2011).

However the regular use of media by children and young people in their daily lives seems to remain out-of-step with its use in schools. In 2006, Buckingham stated that "increasing numbers of young people find the use of technology in schools limited, boring and irrelevant – particularly as compared with the ways in which they can use technology in their leisure time" (p. 2). More than a decade later, this was also one of the main conclusions of the European project, "Transliteracy – Transmedia Literacy". A study developed with Portuguese teenagers, in the framework of this project, revealed that there is considerable dissonance between what teenagers learn in classrooms and their everyday lives and concluded that:

> media uses, practices, experiences and learning come into school by "people who live in students", but are not explored, discussed, or talked about. This educational, cultural and technological gap between the lives of young people inside and outside the classroom is not a recent phenomenon, but it became even more pronounced in the digital era, with the media everywhere and being taken by students in their own pockets. (Pereira, Fillol & Moura, 2019, p. 47)

Buckingham (2006) calls this gap the "new digital divide between home and school", and believes that bridging it requires special attention to young people's digital cultures.

As mentioned at the beginning, it is possible to assume, in light of the ongoing pandemic and the numerous constraints and challenges that it poses for families with children, that various types of media now assume an even more prominent place in families' lives. In other words, during the lockdown period, children have used media for longer periods of time and parents have become more dependent on media to facilitate various child-rearing routines. School itself is now reaching homes via screens, which should not be seen as a negative development. As noted by Dafna Lemish (2020), media may actually help children and parents during their prolonged periods of time at home. The variety of websites, TV programmes, applications and computer games can teach and amuse, release tensions, and safeguard people's health. Moreover, the new

interpersonal communication tools can make it easier to stay in touch with friends and relatives and provide learning frameworks during the school lockdown. Media can also provide shared viewing opportunities for families, and thereby foster a sense of togetherness and bonding during a stressful time, while parents may also employ media use as a replacement for parent-child interaction when they feel that they have less stamina for parenting.

On the other hand, parents should also be aware that extensive media exposure may overstimulate children's brains and foster aggressive behaviour, encourage sedentary habits and unhealthy eating, trigger fear and anxiety, and reduce the time available for other activities that promote physical and mental health (Lemish, 2020). Accordingly, parental mediation of children's media use is even more essential when parents and children spend a great deal of time together at home, aimed at deriving benefit from media use while reducing its negative effects.

In her influential blog *Parenting for a Digital Future*, Sonia Livingstone (2020) claims that this new "digital-by-default" reality also poses several major concerns, starting with the fact that not all families can afford the technology or connectivity to support home-schooling and not all children (especially those with special educational needs) can be reached and educated online. Moreover, many parents may find it difficult to locate and evaluate online resources appropriate for their children's abilities and their family's circumstances. Finally, this new reality highlights the danger of datafication and digital surveillance – whether by governments or businesses or both - as more of families' and children's private lives take place online (Livingstone, 2020). In this new reality, the media literacy of parents and children is more important than ever, in order to become more aware of online risks and strike the right balance between offline and online ways of life.

This volume dedicated to the relationship between children, young people and the media received an excellent response from national and foreign researchers, with the submission of around 50 papers. Using a double blind review process, we selected the nine articles of this issue. The contributors from various different countries, offer a transversal response to these questions, at both a thematic and methodological level. Nonetheless, their different social contexts underline the importance of the situation and its associated digital and non-digital conditions.

The first two articles, from Spain and Brazil, both share a participatory methodological orientation in terms of research involving children and young people, focusing not only on the voices, but also the eyes of children and young people, revealed through the choices of what they record in images and the way that they do it.

"Guided participation in youth media practices", by Julián de la Fuente Prieto, Rut Martínez-Borda and Pilar Lacasa Díaz, analyses a collaborative media literacy process based on culturally significant activities involving young people in Madrid, aged between 8 and 14 years old. These activities, conducted in photographic language workshops in the premises of the Telefonica Flagship Store, highlighted the potential of a collaborative learning environment to foster participants' critical attention towards their own practices. The discussion also highlighted the fact that having digital devices and being

connected to others via social networks from an early age enabled these young people to articulate online and offline activities linked to their interests. In this context, the images that they produced about themselves and their peers appeared as an expression of their identity and representation of habits marked by their intense media experience.

"Disposal and consumption: visual participatory narratives of children and adolescents living in Jardim Gramacho", by Daniel Meirinho, explores the environments of digital and social exclusion of young people living in a community occupying a former landfill in Rio de Janeiro. The photographs produced by the participants (aged between four and 16 years old) in the context of the workshops organised by the author using the *photovoice* method, reveal how they visually represent social practices of contemporary consumption and their surrounding environment of discarded objects. On the basis of the photographic images recorded by these young authors and the subsequent discussion thereof, the author concludes that, for these children and adolescents living in an outlying neighbourhood, "the goods disposed and found in the trash make part of the constitution of social relationships and identities, of belonging to or distancing from the consumer society" (p. 51).

The following two articles – from Argentina and Portugal – analyse the migration to the home space, focusing on the technology-mediated relations found there.

Carolina Duek's and Marina Moguillansky's article, "Children, digital screens and family: parental mediation practices and gender", explores digital parenting as a gender-influenced activity. The qualitative methodology used by the authors draws on personal experience with technology (in the form of "technobiographies"), by children and their mothers and fathers. The results of the survey of urban and middle-class families in Argentina reveal how "digital parenting is gendered, following broader cultural representations based on the heteronormative gender system of role assignation" (p. 65). For the authors, it is necessary to denaturalise social constructions of parenting reflected in the mediating intervention of technologies. They conclude that this denaturalisation of gender roles and the distribution of work in families in relation to children's online activities will make an important contribution to the ways that families connect and interact with digital technologies and practices.

The article by Carla Cruz, Catarina Franco, Fábio Anunciação and Maria João Cunha – "Screens' domestication in childhood: uses and parental mediation in city and rural contexts" – characterises the use of screens in function of the nature of the social environments – urban or rural – where Portuguese preschool children live and the ways in which their families intervene in the introduction and use of screens. The research uses a focus group methodology with children and their parents and reveals that there is no direct relationship between more urban environments and the use of screens. On the contrary, parents in more urban environments tend to have a greater perception of the risks associated with excessive exposure of children to technological devices and ensure that they are used less intensively. The article also concludes that the main parental motivation for children to use screens is the concern that their children may otherwise suffer social exclusion.

Bárbara Janiques and Lídia Marôpo focus on micro-celebrities, in "'I'm sorry you don't flag it when you advertise': audience and commercial content on the *Sofia Barbosa* YouTube channel". Using netnography to study the channel of Portuguese youtuber, Sofia Barbosa, the authors analyse the comments left by subscribers in a sample of 10 videos, while considering the visual, verbal and commercial aspects of the videos. The data indicates that a relationship of proximity and affinity has been created between the youtuber and her audiences, who approve and reciprocate her strategies of authenticity and intimacy. There are only occasional critical voices, due to the constant calls for viewers to consume products and the lack of transparency in relation to sponsorships. According to the authors, the results of this work help us understand the sociability of children and young people generated in the context of digital consumer cultures.

"Youth, science, and media: perceptions of Astronomy and Space Sciences in formal and informal contexts" – by Sara Anjos and Anabela Carvalho, highlights the perceptions of forty young people about science, in particular Astronomy and Space Sciences, while exploring how they appropriate scientific information to make decisions and form opinions. Combining quantitative and qualitative methodologies, the results of the study reveal the importance of informal learning, in particular from the media, for the development of young people's scientific literacy. In general, the participants in the study do not deliberately search for news about science, they do so casually, through the institutions that they follow on social networks, for example, which inspires them to undertake new and complementary research. One of the article's key conclusions concerns the development of skills as potential content producers, in a convergence between science-based literacy and media literacy.

The following text, by Aurora Labio-Bernal, Lorena R. Romero-Domínguez and María José García-Orta, entitled "Protection of minors in the European digital audiovisual context: a necessary dialogue between parents, academy, regulators and industry", concerns the issue of regulation and protection of minors. Researchers at the University of Seville, in Spain, defend the need to expand the scope of child protection in the current digital media environment, through the involvement of regulators, industry, academia and parents. To support and develop this idea, which is both a point of departure and arrival, they analyse secondary data from a database of documents and programmes from different institutions, while also analysing initiatives taken by European and Spanish companies, in order to verify whether measures to protect children with regard to the media are being implemented.

Joana Fillol and Sara Pereira are the authors of the article, "Children, young people and the news: a systematic literature review based on Communication Abstracts". Applying the systematic literature review technique to the Communication Abstracts database, the authors aim to define the state of the art of a specific topic in children and media studies – the relationship between children and young people and the news. Based on a sample of 146 titles, the authors analyse the source of the studies, the areas that are more and less covered and the scientific journals that give them greater prominence. The results indicate that many of the approaches are based on reception and representation,

with fewer studies on production, and even fewer cases of works that focus on parental mediation and the ethical issues of journalistic coverage of cases that involve children and young people.

In the final article, children and young people are indirect subjects, while focusing on the digital skills and practices of primary and secondary school teachers in Montenegro. The authors, Ida Cortoni and Jelena Perovic, present the main conclusions of the "Global Kids Online" study, which was applied to a sample of 911 teachers from the country's primary and secondary schools. Using the concept of "digital capital", from the macro, meso and micro social perspectives, as its analytic model, the study points to the need for greater investment in education in the latter two levels. In terms of pedagogical innovation, the study also highlights the importance of developing teachers' transversal skills in order to improve their digital awareness and critical analysis skills of the media.

This issue ends with an interview with Henry Jenkins, professor of Communication, Journalism, Film Arts and Education at the University of Southern California, conducted by Pedro Moura, a PhD student in Communication Sciences at the University of Minho. In "Children and youth cultures meet the challenges of participation", Jenkins not only discusses the concept of participation – and the conditions, objectives and spaces in which this occurs – he also reflects on the importance of participatory culture in the context of a global crisis, wherein this reflection can also be transposed to the crisis caused by Covid-19. Through their conversation, Henry Jenkins and Pedro Moura leave us with a significant article to think about and achieve a fuller understanding of participation in the context of the cultures of children and young people.

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Sara Pereira is Associate Professor at the Department of Communication Sciences and researcher at the Communication and Society Research Centre (CECS) at the University of Minho. Her main research areas are children, young people and media and Media Literacy. She has been chair of the Media Education Research section of IAMCR – the International Association for Media and Communication Research since July 2019. She is co-coordinator of MILobs – Observatory on Media, Information and Literacy and co-author of the radio programme *Ouvido Crítico*, broadcasted weekly on Antena 1 since February 2018.

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Thematic articles | *Artigos temáticos* ◉

Guided participation in youth media practices

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Abstract

Youth has to deal with some digital practices and develop media discourses on their own. Our study aims to deepen these concepts from the point of view of the guided participation, understood in this case as a collaborative process of media literacy based on culturally significant activities. Our data comes from a series of workshops that took place at the Telefonica Flagship Store (Madrid, Spain) with teens between eight and 14 years old. The evidence was collected by qualitative research techniques such as observation, conversation and descriptive analysis. The results give us some preliminary ideas for discussion: 1) social media practices enable youth to connect their online and offline activities with their interests; 2) the generation of collaborative learning scenarios based on the interaction between young people becomes a fundamental element of media literacy and 3) user-generated content emerges as an identity and habits depiction in media, especially among young people.

Participação guiada nas práticas mediáticas dos jovens

Resumo

Os jovens têm de lidar com algumas práticas digitais e desenvolver discursos mediáticos por conta própria. O objetivo do nosso estudo é aprofundar estes conceitos do ponto de vista da participação guiada, compreendida, neste caso, como um processo colaborativo de literacia mediática baseado em atividades culturalmente significativas. Os nossos dados provêm de uma série de workshops realizados na Telefonica Flagship Store (Madrid, Espanha) com adolescentes entre os oito e os 14 anos de idade. As observações foram recolhidas através de técnicas de pesquisa qualitativa, como a observação, conversação e análise descritiva. Os resultados fornecem-nos algumas ideias preliminares para discussão: 1) as práticas nas redes sociais permitem que os jovens liguem as suas atividades online e offline aos seus interesses; 2) a geração de cenários de aprendizagem colaborativa baseados na interação entre jovens torna-se um elemento fundamental da literacia mediática; e 3) o conteúdo gerado pelo utilizador surge como uma identidade e representação de hábitos nos *media*, especialmente entre os jovens.

Introduction

Young people live in a media convergent ecology and they frequently use digital devices at schools and in their leisure time at home. However, many social media demand specific abilities to generate media content and join the user community. Therefore, youth has to deal with some digital practices and develop media discourses on their own. Our study aims to deepen these concepts from the point of view of the guided participation, understood in this case as a collaborative process of media literacy based on culturally significant activities.

Our data comes from a series of workshops that took place at the Telefonica Flagship Store (Madrid, Spain) with teens between eight and 14 years old. In these workshops, young people used iPads to generate visual content and share their creations on social networks such as Instagram. Youth interacted with researchers by using digital apps, generating messages and joining a community of practice.

The main aim of the research was to take advantage of these context to approach the media literacy of young people in social networks from a guided participation perspective. According to this, our goals are:

- to identify the media habits of participants in the workshops;
- to evaluate youth learning practices within media in the workshops;
- to explore the discourses used by youth in the workshops.

First of all, we will analyse the theoretical framework on collaborative learning processes in media contexts, and then address the nature of the discourses present in the new media.

Learning with media practices

No one doubts that the media contribute to the structuring of contemporary society and culture. Citizens, especially younger people, access and participate in these media without any specific training (De la Fuente, Lacasa & Martínez-Borda, 2019). However, even today, education around these media is reserved for the professional and academic fields. For this reason, we understand media literacy (Scolari, 2018) as a learning model that extend use and participation in the media beyond the classroom.

This lead us to look for a methodology for media education, which is not limited to functional literacy but also capable of promoting practices and discourses specific to the socio-cultural context of young people (Cortesi & Gasser 2015; Itō, 2010; Jenkins, Itō & boyd, 2015), which brings us back to cultural psychology and the tradition of cognitive learning models such as Lev Vygotsky's.

In this line, authors such as Lave and Wenger (1991) have proposed a model that starts from peripheral participation to end up developing full participation in the

sociocultural context, that is, *situated learning*. For Claudio Magalhães (2018) Vygotsky's model to explain the mechanism through which social interaction facilitates cognitive development resembles a learning situation, in which a novice works very close to an expert in the joint resolution of a problem in the zone of proximal development.

This is how the concept of *guided participation* arises; as "processes and systems of participation among people who communicate and coordinate efforts during their participation in culturally valued activities" (Rogoff, 2008, p. 142). In this way, guided participation fosters collective scaffoldings (Bruner, 1996) in which both novices and experts share the same goals, resources and strategies within the same context. Learning is achieved thanks to the fact that apprentices are able to make a link between previous knowledge and experience in solving real problems.

A more current approach based on this same tradition of Vygotsky would be *connected learning* (Itō et al., 2013), which supposes the sum of personal interests, collaboration between equals and school performance. This is a learning context that combines real and virtual environments by creating a community of practice in which anyone can participate:

> connected learning is realized when a young person is able to pursue a personal interest or passion with the support of friends and caring adults and is in turn able to link this learning and interest with other areas of their life. This model is based on evidence that the most resilient, adaptive, and effective learning involves individual interest as well as social support to overcome adversity and provide recognition. This concept seeks to build communities and collective capacities for learning and opportunity. (Itō et al., 2013, p. 3)

Underlying all these models is the desire to establish open, collaborative and meaningful learning, whose axis of action is participatory culture and collective intelligence (Carpentier, 2011; Jenkins, Itō & boyd, 2015; Lévy, 1997). It is a model born in the field of psychology as well as education and which is currently being studied more ingrained in communication, especially in practices and discourses associated with new media (Burn, 2009; Gauntlett, 2013; Lowgren & Reimer, 2013).

The discourse of new media

The preponderance of digital discourses has been parallel to the rise of the generation repertoires by the users of the media. Until recently, the only discourses that could be analysed were the canonical ones elaborated by traditional media. Generally, these studies analysed power relations with a critical perspective (Fairclough, 1992; Foucault, 1971). However, nowadays new media are shifting the focus of interest of these studies. As suggested by the book *Discourse and digital practices,* "digital media in some ways force us to rethink our very definitions of terms such as text, context, interaction, and

power" (Jones, Chik & Hafner, 2015, p. 5), which is equivalent to redefining the characteristics of the discourse elaborated through these media.

Some studies on the use of language in new media (Barton & Lee, 2013; Georgakopoulou & Spilioti, 2015; Hocks & Kendrick, 2003; Page, 2014) refer us to two of its main characteristics, multimodality and intertextuality. The first characteristic affects the nature of the texts produced through new media. We understand this multimodality (Kress, 2010; Machin, 2013; Rowsell, 2013) as the ability we have to combine various expressive codes to obtain a single text to which we give meaning through the same semiosis.

Intertextuality (Gauntlett, 2013; Jenkins, Ford & Green, 2013; Madianou & Miller, 2013) refers to the ability to generate meanings through references to other texts. This second feature is vital to understand why the contents of new media make sense as discourses rather than as products locked in on themselves. Returning to the book edited by Rodney Jones et al. (2015), we must highlight appropriation and recontextualization of texts as one of the main characteristics of discourse in new media:

> just as intertextuality and multimodality are defining features of digitally mediated discourse, so is recontextualisation. Much of the way we craft our texts and utterances depends on how we take into account the contexts in which they will be interpreted. (Jones et al., 2015, p. 5)

At this point, it is worth recognising that discourse studies in new media (van Dijk, 2011; Pilkington, 2016; Thurlow & Mroczek, 2011) provide us with a new approach not only to know the use of language, but also to understand how these new forms of communication transcend digital environments (De la Fuente, García-Pernía, Cortés-Gómez, Martinez-Borda & Lacasa, 2017). It is increasingly difficult to separate the activities we do inside or outside the media and to differentiate their discourse from our own cognitive activity.

In short, our discourse is mediated, same as our participation in the media contributes to the generation of new discourses. Recurring to the notion of *discursive genre* (Bakhtin, 2010), its validity is credited precisely in the new media thanks to its dialogical character, what is equivalent to saying that the discourse is configured in the practice itself. That is why the generation of meanings is related to participation. If the media is the context, discourse is the tool to participate in social and cultural processes.

Method

As reviewed in the theoretical framework, our research is marked by practices in new media and the discourses associated with its context, but we also want to focus the study on a population especially sensitive to these changes, that is, youth. In this sense, the concept of practice (Bourdieu, 1977) is key as a unit of analysis, since it allows us both to observe the process and to understand the results within the context.

Numerous social scientists define these practices as models of behaviour linked to activities, objects and cultural uses (Bellotti, 2015; De Meulenaere & De Grove, 2016;

Dorsten & Hotchkiss, 2014; Jensen & Laurie, 2016) Therefore, an empirical investigation based on these practices should include, according to De Meulenaere and Grove (2016, p. 214): the study of the procedures by which it is carried out, the understanding of the meaning it has for the participants and the identity that is established with the material results. Only if we take these factors into account can we interpret the true meaning of the practices in new media.

Thus, our object of study would be the practices that youth develop within the guided participation of researchers. According to Susan Gair and Ariella Van Luyn (2017), this context can be achieved through the development of creative activities through new media and, at the same time, in physical contexts, both shared by researchers. In our case, we decided to generate these guided participation through the achievement of digital art workshops with youth in non-formal settings. The objective was to take advantage of these contexts from an all-encompassing perspective. This is in addition to promoting creativity, committing researchers to facilitate media literacy and promote social participation through new media.

Data

The origin of this research comes from the collaboration between the University of Alcalá and Fundación Telefónica through the Interactive Generations Forum. The proposal is based on the realisation of a series of workshops aimed at youth for them to learn how to handle different mobile applications. While the participants explore photographic language and social networks, the researchers examine how they use these devices and what practices they develop in this context.

In this case, the workshops took place at Telefónica Flagship Store in Madrid and were open to youth aged eight to 14, previously registered through the website[1]. Adults who accompanied the participants could stay in this space and participate in the workshop's activities. Depending on the number of participants (ranging from 12 to 25), they accessed an iPad tablet individually or in pairs. Each of these tablets had an internet connection with its own account, which allowed connecting as different users to the same social networks. In addition, each iPad had different applications installed for taking and editing photographs.

Being an ethnographic research, it is very important to know each participant well and to personalise the collected data to the maximum. For this reason, we have a complete attendance record and, above all, a personalised follow-up through the iPad. At the beginning of each workshop, each participant was asked to take a selfie so that all the photographs he/she took would be properly ID-ed. At the end of each workshop they were also asked to write a small text with their name, age and the name of the accompanying researcher. All this information is perserved under the rules of the General Data Protection Regulation and only has requested authorization to tutors to use the data collected entirely anonymously.

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[1] See http://flagshipstore.telefonica.es/

Session	04/10/2014	22/11/2014	13/12/2014
Participants	15	14	21
Files	499	588	1026
Sumaries	6	13	7
Audio	00:24:28 03:03:51	0039:33 00:50:57	00:27:45 00:27:26 01:48:45
Photos	244 (DSNG) 18 (Smartphone) 52 (Smartphone)	317 (DSNG) 520 (DSNG) 22 (Ipad)	211 (DSNG) 343 (DSNG) 4 (Smarphone) 27 (Smartphone)
Video	2:12:35 H. (Cam 1) 1:55:55 H (Cam 2)	1:45:30 (Cam GG1) 0:26:58 (Cam GG2) 2:17:20 (Cam GP) 2:08:43 (Cam GM)	2:17:51 (Cam GG) 2:03:42 (Cam GP) 0:36:46 (Cam GM)

Table 1: Data analysed (GIPI Research Group, http://uah-gipi.org)

The data collection was completed with the audiovisual record of the session. Two video cameras ensured full coverage of large group situations, folding camera shots between the main researcher and the other participants. One more camera was added when the participants were divided into three groups at certain times, carrying out a complete follow-up. In addition, every researcher carried an audio recorder that they used to conduct personal interviews and also facilitate security recordings. Finally, two photographers did a report of each session supporting the external visual record of the activities carried out during the workshop.

Analysis

The analysis is perhaps the most critical part of any qualitative research. In our case, the difficulty in relating these data to the rest lied in the priority use of a visual and participatory approach (Mannay, 2016). This implied having to combine different data sources such as researchers' journals, recordings of activities and the participants' content. All this offered different points of views from which to apply the analysis.
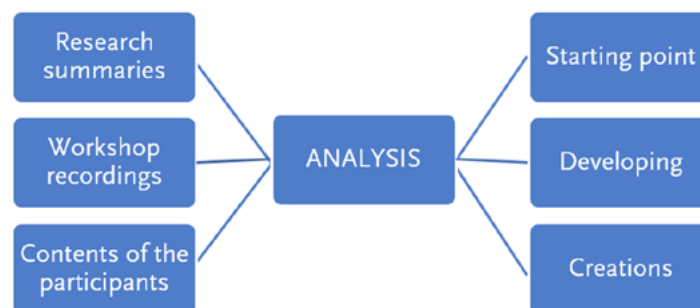
Figure 1: Organisation and combination of data in the analysis

After reviewing several examples of these interpretive approaches (Delgado, 2015; Moss, 2016; Tinkler, 2013), we conclude that, instead of opting for separate perspectives, it would be wise to opt for a hermeneutical analysis, that is, interpreting the different instances and points of views in the data produced as a whole through which, according to Margrit Shreier (2012), the meaning is constructed.

This lead us to propose a content analysis (Bazeley, 2013; Krippendorff, 2013; Schreier, 2012) as a preferred method to interpret the processes of creating meanings where they arise and taking into account all the actors present. For Klaus Krippendorff (2013), this involves analysing the relationships among the participants, the context of the media, the technological tools and the symbols established through the culture.

Our conceptual analysis has been based, therefore, on the codification of these three sources of information: textual, visual and auditory. The written documents have been the research diaries, as well as the summaries of the research group meetings. The visual information has been based on the photographs taken throughout the workshops. Meanwhile, the audiovisual documents start with the recordings of the dialogues established with the participants. In this way we have been able to triangulate the extracted data and obtain the analysis categories. For this particular project, we decided to use NVivo software that allows us to work with text, photographs and video at the same time.

Using coding as a primary strategy to process the different materials under study allowed us to consolidate and validate the analysis process through the different contexts and successive sessions in which we applied this method (Bazeley, 2013; Krippendorff, 2013; Schreier, 2012). Thanks to this, despite being different participants, the continuity in the activity of the workshop and its analysis has been contrasted at all times.

In addition to building a data matrix with multiple sources of information and a range sample of participants, we have tried to relate the evidence beyond the categories present in discourse analysis (van Dijk, 2011; Gee & Handford, 2012; Thurlow & Mroczek, 2011). According to the qualitative perspectives on this (Bazeley & Jackson, 2013; Saldaña, 2016; Silverman, 2011), analysis models are overcoming exclusivity in the use of textual codes to begin to establish categories based on visual or narrative meanings. Therefore, even if we organise the data through analytical categories, the interpretation we want to give to this evidence goes much further than the relationships of meaning they have separately.

Results

The analysis of the workshop development is fundamental to understand the practices carried out in this media literacy project. Therefore, if we analyse the role of the participants both inside and outside the workshop, we will be able to situate their practices and interpret the discourses later. First of all, we will collect the evidence about the participants' previous habits, and then observe what the activities carried out in the workshop are and finally analyse the discourses produced in this context.

STARTING POINTS

Knowing the participants is a priority task in the research. That's why before starting, basic data such as name and age are collected; but we also asked the participants to provide us with their social media handles in order to be able to follow up after the workshop.

All these data allowed us to contextualise in a general way the sample of ethnographic research. In addition to this, during the workshop we did not hesitate to deepen their previous experience and we asked them directly about their activity in social media to find out about their usual practices and how to structure the project:

> Researcher (R): What do you use to take photos?
>
> Participant (P): My mobile.
>
> R: And what kind of photos do you take?
>
> P: Of family. And of birds and animals.
>
> R: And then you edit them?
>
> P: No.
>
> R: And do you upload them to the internet?
> P: No, I keep them to myself. (Transcription 1/ camera 2 / workshop 3, Dec. 13th, 2014)

In this transcript, the researcher asks a nine-year-old girl about her photographic habits. The girl's response shows that her use of the photos is completely domestic, both in terms of the devices she uses and the themes. But above all, it shows us that there is no awareness of the use of photography as a means of communication. Here is another example in which the participants have previous experience in media such as Instagram. However, throughout the dialogue it becomes apparent that the content uploaded to this social network remains eminently private or focused on relations linked to the surrounding environment.

> R: What do you upload to Instagram?
>
> P: Photos of "McDonalls", of...
>
> R: What you do with your friends?
>
> P: Yes.
>
> R: You too? Or what do you upload?
>
> P ': Sometimes I take pictures of landscapes.
>
> R: And what about you?
>
> P '': Photos of singers.
>
> R: And you?
>
> P '' ': Pictures of myself.
>
> R: Of yourself? Things you do with your friends? (Transcription 2/ camera 2 / workshop 1, Oct. 4th, 2014)

As a result of these interactions throughout the workshop, each researcher manages to get to know more about the participants with whom he/she has worked. For

example, this researcher is able to identify the main skills of each participant and if their competence is the result of a formal or informal literacy process. But above all, she manages to detect values and opinions when contextualising the practices developed by these youth in the workshop.

> In my group I had S., M. and I, all with very different profiles. S. was very skilled with social networks as well as editing, but he preferred Vine to Instagram. He said that Instagram does not contribute anything; that people only upload selfies and photos of people and that he does not like much. On the other hand there was M., he knew a lot about photography because he had done a course before and he mastered many skills, but his father did not allow him to use Instagram. I. is 12 years old but she is not self-involved, she is interested in other types of photos, she likes old buildings and she wants to improve her photography skills. (Summary 1 / researcher K. / workshop 2 / Nov. 11th, 2014)

This knowledge of their habits and beliefs about photography and social networks is shared by all the researchers through the summaries. Through its categorisation we were able to determine if any of these evidences occurs in a generalised way. Thanks to these results we have been able to determine how the participants are not aware of those online practices that do not correspond to activities located in their daily lives. Therefore, social media practices enable youth to connect their online and offline activities with their interests.

Development

The result of any social practice is not only measured by the production of cultural objects, but also by the establishment of shared rites and beliefs. In this sense, the most important part of the workshop was not the photographs that the participants took, but the goals and the content they created. We have already seen how all those elements are taken into account to situate the workshop activities in a broader context; that of social networks and of the participant's experiences in those networks. This way, the activities carried out in the workshop were connected to the socio-cultural context of the media.

In addition to interacting with the participants through dialogue, we also do so through observation. In this case, the evidence we collected is associated with the workshop's own dynamics. When proposing certain activities to the participants, we find out about their processes and about how the practice is organised.

> I focus mainly on the more mechanical actions, how they frame and discard photos and how they apply small editing tools on the fly. The majority offer advice, express aloud the tasks they are carrying out and, above all, imitate the actions that have been carried out by more advantaged colleagues. (Summary 2 / researcher J. / workshop 1 / Oct. 4h, 2014)

Through this summary, the researcher describes how participants begin to take photographs using tablets. Among other evidences, it is emphasised that this process is not carried out individually, despite the fact that each participant has their own iPad. In fact, a series of group actions are generated in which pooling and cooperation are key factors. Therefore, any photograph taken by a participant is a direct consequence of this group activity.

But this group is not only made up of boys and girls, but also by researchers who participate in these activities through participant observation. The following transcription shows us how the participants have established a series of common practices throughout the session, through the sharing of work.. In this way, observation and dialogue come together to guide the literacy process:

> Researcher (R): Please L., tell us how you have worked and the goals you
> have set.
> Participant (P): First we asked what topics we were going to deal with.
> Finally we have begun to treat the building that is built on an ancient base
> that can be seen below and is covered by this white and below is the build-
> ing of the 20th century.
> R: Ok. Another question is whether the videos we have put at the begin-
> ning makes sense. If they have given you ideas.
> P: Yes, but there is a lot of difference between what the little ones like and
> what we like. (Transcription 3/ camera 1 / workshop 1, Oct. 4th, 2014)

The evidence we extract is that, in addition to contextualising the practice, it is essential to share the goals when carrying out an activity. No photograph acquires meaning unless it is taken with an objective on the part of the participant, and this goal only has value if it is recognised by the community of practice.

Therefore, the researchers' mission is to establish a guided participation (Rogoff, 2008) that allows the apprentices to carry out the activities according to their own interests and experiences. We seek a participation that also generates roles that allows for scaffolding processes between expert and novice participants as exemplified in a transcription of the second session:

> R: Girls, you who are experts; explain how to use "Pixart".
> P: Get into "Pixart". Click here to edit. Choose a photo.
> R: Look, all of this right here is the effect. Explain how to use them.
> P: You are hitting here and you can put it in black and white, and in sepia
> and in many effects. If you go here you can put a text.
> R: And what is the purpose of editing. Why do you edit?
> P: Well, to make the photo better. (Transcription 4
> / camera 4 / workshop 2, Nov. 11th, 2014)

In this case, the researcher describes a clear example of collaboration in the zone of proximal development (Vygotsky 1987) in which some girls help another to carry out

a common purpose such as editing a photograph. The creation of a community is the result of these activities. However, we are aware of the difficulty of achieving this goal in such a short time and with such heterogeneous participants. The role of the adult is key in this task and in facilitating the work of the research group that generates those dynamics among all the participants.

Creations

Once the objectives have been understood and taking into account how the process has been carried out, we can analyse the creations made by the youth in the workshop. These contents are the result of their own interests and previous experience, they are characterised by the devices with which they are done and reflect the shared goals with the researchers. But above all, they serve to evaluate the participants' discourses, since they become the living voice of their practices. For this we will analyse both the use of language and the contents that represent the participants in the images uploaded to Instagram. We will therefore use a visual analysis that will take into account both the denotative and the connotative, paying special attention to the relationship between the images and their context.

Figure 2: Selfies of the participants (various Ipads and sessions)
Credits: GIPI Research Group, http://uah-gipi.org

If there is one category that stands out above the rest in the workshop, that is the selfie. The reason is that the first activity proposed to the participants is to take a selfie at the beginning to match their faces with the images they take throughout the workshop. In any case, the participants continued using this model throughout the workshop with slight variations. In Figure 2 we can see some of these selfies: in the upper left side we

find its most common version, looking directly at the camera. On the upper right side, they pretend to be performing some action (in this case, talking on the phone). In the lower left side, the participant appears next to another object with which he wishes to associate his image. Finally, on the lower right side there are two participants striking some kind of pose. In all cases, the representation the self is the fundamental content of the image, but if we take the "staging" into account, the message will be more or less complex.

Figure 3: Images in the mirror (various iPads and sessions)
Credits: GIPI Research Group, http://uah-gipi.org

There are two other forms of self-representation that stand out among the content generated with the tablets. On the one hand, we find how the participants tend to take pictures in front of mirrors (Figure 3). Bearing in mind that the iPad itself includes a front camera that makes the screen work as a mirror, it would not make sense to look for this reflection to be portrayed. Even so, the evidence shows that participants need to take pictures of everything that reflects them, be it mirrors, polished surfaces or even other tablets. Another constant representation in the photos are their feet and that of the people around them. Some of the images might have been taken by mistake, but this "theme" comes up again and again as we can see in Figure 4.

Figure 4: Feet and shoes (various iPad and sessions)
Credits: GIPI Research Group, http://uah-gipi.org

Be it a selfie, a reflection or feet, the representations that the participants make of themselves is one of the most widespread contents both inside and outside the workshop; a kind of mimetic discourse in which participants tell us about their mood, experiences and situation in space. Almost without realising, they are building a story in which they become the protagonists. An example of this is the collage that the participants made with the photos they took throughout the workshop. In Figure 5 we see one made by an eight-year-old girl summarising her experience, including the objects and the people who participated in it.

Figure 5: Collage in iPad 13 (22/11/2014)
Credits: GIPI Research Group, http://uah-gipi.org

These results give us some ideas for discussion: the discourses used by youth in the workshop are based in their shared experience. From models shared through guided participation, young people are able to explore the workshop space through these representations. This user-generated content emerges as a depiction of young people identity and habits through media.

Conclusions

Our experience through these workshops shows us that young people are developing their own practices and discourses. Their young age is not a hindrance for them to develop meaningful practices through social networks, even though issues such as privacy and child protection clearly limit the scope of this activity. However, in the workshops they show that they have enough skills to exercise full participation:

- firstly, we find that young people are well able to use technology freely and creatively. However, for this to happen the media need to become socio-cultural contexts in which to carry out meaningful and situated activities;

- secondly, sharing devices such as tablets and working in small groups has proven useful in fostering creativity. The generation of collaborative learning scenarios based on the interaction between young people becomes yet another fundamental element of media literacy;

- thirdly, the scaffoldings between experts and novices has also proved especially fruitful, particularly when it comes to connecting the most technical issues with the socio-cultural context of this media literacy without forgetting the mediating role of the research team;

- fourthly, the achievement of common goals is crucial to activate meaningful learning. Without these goals, it is impossible to generate a sense of media participation and the value of a shared culture. These goals are what generate the meaning of practices in the media.

Based on these results, we can point out some practices that have been especially useful for media literacy. Building a community around certain media practices can be helpful, as well as sharing these practices both inside and outside the media:

- young people should equate the activities they carry out in new media with the relationships they maintain in their physical environment. Only this awareness will allow us to participate meaningfully and will therefore make sense for them.

- young people could build their identity through the media, although they do not always manage to identify with the content they generate. For this reason, it is recommended that young people establish prior goals that allow them to become aware of the messages they want to send;

- another crucial element is the lack of connection between the content they generate and the social interaction they establish through the media. The need for media literacy is an essential element when connecting discourse and practices.

In short, there is a media literacy that involves more than understanding the structure, production and reception of new media and is not limited to being a critical paradigm of their texts. Rather, it understands the media as a tool with which to participate effectively, both in society and in the culture of our time.

Acknowledgements

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Disposal and consumption: visual participatory narratives of children and adolescents living in Jardim Gramacho

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Abstract

This article invites us to realize how a group of 16 children and young people, from four to 15 years, residents of the old landfill of Jardim Gramacho, in Rio de Janeiro, act as narrators of their own stories. Based on the analysis of the photographs produced by the group of participants, the article aims to understand how they visually represent contemporary social consumption practices and the disposal environment in which they live. The participatory photography is a tool for the construction and critical reflection of meanings that involve a critical perception around consumption, but not the acquisition of goods such as toys, play environments and other objects, through the photovoice method. The research is part of the project of social intervention "Olhares do Gramacho" that developed in November 2018 a set of workshops which culminated in a photographic exhibition at the end of the action.

Keywords

participatory photography; childhood; sanitary landfill; consumption; photovoice

Descarte e consumo: narrativas participativas visuais de crianças e adolescentes residentes no Jardim Gramacho

Resumo

O artigo convida-nos a refletir sobre o modo como um grupo de 16 crianças e jovens, de quatro a 15 anos, moradores do antigo aterro sanitário do Jardim Gramacho, no Rio de Janeiro, atua como agentes narradores das suas próprias histórias. A partir da análise das fotografias produzidas pelo grupo de participantes, o trabalho propõe-se perceber como representam visualmente as práticas sociais de consumo contemporâneo e o ambiente de descarte em que vivem. A fotografia participativa é a ferramenta de construção e reflexão crítica de significados que possibilita uma percepção crítica em torno do consumo, mas não da aquisição de bens como brinquedos, ambientes de brincadeiras e outros objetos através do método *photovoice*. A pesquisa se integra ao projeto de intervenção social "Olhares do Gramacho" que desenvolveu em novembro de 2018 um conjunto de oficinas e culminou numa exposição fotográfica no fim da ação.

Palavras-chave

fotografia participativa; infância; aterro sanitário; consumo; *photovoice*

INTRODUCTION

Since its invention to its extended accessibility, photography has been popularly referred to and sometimes noticed as a window that sees the world as it shows itself and other times as a mirror that reflects a reality (Barthes, 1984; Baudrillard, 1995; Sontag, 1986). Many debates approach its veracity, being photography understood as a modern format of framing the various perceptions of the real world (Baudrillard, 1995). However, this "production of reality" creates a universe of simulations from visual experiences of non-hegemonic peripheral contexts that reproduces narratives and representations from their cultural, economic and social repertoires.

Photography becomes a benchmark over the years, at times full of stereotypes that activate crystallized memories from the foreign look that locates and puts a spotlight on what should make part of the agenda of global and local preoccupations. To Mark Sealy (2019), photography became a benchmark of how a few cultures see the "others", in a work of filing of the cultural memory, which many times plays a role of violent ideological representation of some people and social groups. These images are full of stereotypes that activate crystallized memories in a relation of power between "observer and the observed" that locates and puts a spotlight on those that should make part of the agenda of global preoccupations, while at the same time projects "an inferior or demeaning image on another that distorts and oppress to the extent that the image is interiorized" (Taylor, 1994, p.36).

We based this article in the following central question: how a group of children and adolescents, living in an old landfill of Rio de Janeiro, reflects from their photographs the consumption in the perspective of disposal and not acquisition of objects and goods? The proposal is based in a participatory investigation-action and of social intervention called "Olhares do Gramacho" (Gramacho Views), that used the photographic image as a tool for meetings and talks with a group of 16 children and adolescents, aged between four and 15 years. All the participants were resident of the community *Quatro Rodas*, inserted where the largest "dump" of Latin America was previously located for almost 40 years: the Metropolitan Landfill of Jardim Gramacho (AMJG), in the state of Rio de Janeiro, Brazil.

For six days, in November 2018, this group of children and adolescents acted as narrator agents of their own realities, being the photographs produced by the participants a tool of critical thinking on the contemporary culture of the social and human disposal and a deteriorated identity through the participatory visual methodology photovoice (Wang & Burris, 1997). The proposal of a methodology that takes children and adolescents as research subjects presents a model not so common for studying childhood, especially in the communication in which photography is seen as a communication and expression technology. The method photovoice (Wang & Burris, 1997) inserts in the investigation process community and participation-based activities that promotes visual skills of identification, representation and talk related to specific themes with the social group, through photographic representations.

This article questions how the image can be a reference of collective reflective actions for a group of children and adolescents, from the production of this visuality on their perspectives and personal experiences with the disposal and consumption issues (Marshall & Shepard, 2006). And also how children and adolescents living in a landfill area can contribute actively for a disharmonic imagery representation and contrary to what is showed by the media about garbage debate. If Bauman (2005) argues that "the survival of the form of modern life depends on the ability and proficiency in garbage removal" (p. 39), the reintroduction of consumption goods and disposal culture products are noticed by children and adolescents through an exclusion and inclusion logic. At the same time, this social group is a powerful media and advertising mechanism of the consumption system (Souza, 2016). The appropriation of material goods can be noticed by a cycle of reuse of things and not by the obsolescence rules that cause obsessive behaviors of buying new objects, of the consumer society.

The photographic image was the tool that allowed for debates to be conducted on the interests and regimens of visibility of the group of children and adolescents participating on the theme about consumption and contemporary disposal, as they live in an environment that receives all the solid waste and recyclable trash of one of the most populated metropolitan areas in Brazil. Digital photographic cameras were used by this group of children and adolescents for one week. The aim was to see how the records and visual representations of what they understand as garbage and disposal are contrary or similar to the media representation of the space where they live and how the adjustments and complex issues of living with the garbage and illicit disposal of products and objects are.

The project "Olhares do Gramacho" had in its six days of workshops the production of 3.912 photographs, taken by the 16 children and adolescents residing in the community Quatro Rodas, of Jardim Gramacho. The images portrays, in addition to the theme of disposal, the relationships between the participants, their families and the community, with many images of collective spaces (streets, water treatment plant, football pitches), private environments (residents and waste pickers associations), people from the neighborhood and affective relationships with their friends and pets, as well as objects and trash. There was a large percentage of images of flowers from the personal "gardens" of the houses and organizations, with a clear allusion to the neighborhood's name. In this article, we analyze the images of disposed objects which are reused and the ludic spaces, both according to a logic of consumption (re)appropriation, based in the participants relationship as receptors of the deposits from a excesses society of the contemporary consumerism (Uglione, 2018) and their relationships of self-esteem and affection with these materials.

The participatory visual investigation with children and adolescents

Due to the increasing focus on the rights of children and adolescents, the participation of children in studies of social questions has become a trend in the scope of the

importance given to listening their perspectives and understand their life experiences. The interest for children and young people to participate in the investigation has been increasing every year and emphasizing the importance of hearing their perspectives and understand their lives and experiences (Clark, 2007; Green & Hogan, 2005; Sinclair, 2004). The academic interest for seeking the perspective of children in the investigation (Lewis & Lindsay, 2000), within the structure of rights of the child, starts to recognize the thoughts and experiences of children and adolescents as valuable.

The United Nations Convention on the rights of the child, adopted by the UN General Assembly in November 20, 1989, stimulated even more the development of investigation strategies adjusted to the rights of the child (Lundy & McEvoy, 2012). The Convention establishes rights that must be achieved for children and adolescents to reach their full potential and requires that children-related policies and services meet their wide range of needs and capacities (Lundy & McEvoy, 2012). Thus, children starts to have the right of expressing their point of views in the processes of decision-making, according to the Article 12 that states:

> Article 12. States Parties shall assure to the child who is capable of forming his or her own views, the right to express those views freely in all matters affecting the child, the views of the child being given due weight in accordance with the age and maturity of the child. (Decree-Law No. 99.710)

This space and right of participating actively of investigations related to subjects related to them reflects "on the space that children holds and how they enter in this dispute of senses" (Pereira, Gomes & Silva, 2018, p. 762). The right to participation established by the Convention changes the focus of conducting investigations *on* children to the focus on investigations *with* children.

The participatory investigation-action with children and young people applied in this article has a recent history and has been increasing in the last few years in different sociocultural settings from the so-called participatory investigation-action (Khanlou & Peter, 2005). This research movement challenges the surveillance and knowledge control system through the investigation: "the more the participants look for active control of the investigation agendas, the more powerful these agents establish" (Khanlou & Peter, 2005, p. 2339).

When looking for visual perspectives of children and adolescents, the project "Olhares do Gramacho" recognizes that this is not a hegemonic group, but that everyone has its own set of characteristics and experiences, which makes them unique (Lewis & Lindsay, 2000). The participatory visual methods were chosen in this investigation as a useful tool in the involvement of the group of children and adolescents of Jardim Gramacho, as an invitation that they record their daily lives in photographs. Photography would start to be discussed in a context of sharing critical narratives about the visibility regimens and disposal of objects in the place where they live (Wang & Burris, 1997). The photovoice method was the methodological approach that offered them the possibility of express themselves visually, using an active look to define issues that affect them (Lust,

2013; Woodlrych, 2004), critically reflecting in the voices and hegemonic representations that most of the times do not constitute their identities.

Developed at the beginning of the 1970s by the professor and investigator of the Public Health School of the University of Michigan, Caroline Wang, and by the associated investigator of the School of Oriental and African Studies of the University of London, Mary Ann Burris, the methodological approach photovoice[1] intends to insert community-based activities in the investigation process in order to "identify, represent and strength the resources of their communities through photographic techniques and representations" (Wang & Burris, 1997, p. 369). Photography starts to be a support and work tool "that serves as an instrument to create relationships, inform and organize individuals of the community, allowing them to give priority to their preoccupations and discuss their problems and solutions collectively, through visual frameworks" (Wang & Burris, 1997, p. 370).

In spite of the methodological proposition has been created in the field of studies of public and collective health, the method has been a tool acknowledged in investigations with children and adolescents (Ewald, 2001; Mcintyre & Thusi, 2003; Spielman, 2001; Meirinho, 2016; Wilson, Dasho, Martin, Wallerstein, Wang & Minkler, 2007). The participatory photography (Palibroda, Krieg, Murdock & Havelock, 2009) was a strategic and precious instrument due to the possibility of giving the children and adolescents of Jardim Gramacho the opportunity of discussing their community and habits by their visual representations. In this case, the visual method served to us as an attractive mean of involving actively the participants in the process of research, as well as analytical instrument.

Jardim Gramacho as setting of social investigative intervention

Located at the metropolitan region of Rio de Janeiro, for almost 40 years Jardim Gramacho housed the largest landfill of the Latin America (Cárcamo, De Oliveira & Da Cunha, 2018). Occupying an area of 1,3 million square meters (Bastos, 2007), it became known worldwide by the movie *Estamira* (Prado, 2005), the documentary *Lixo extraordinário* (Walker, Jardim & Harley, 2010), and also the movie *Trash – a esperança vem do lixo* (Daldry, 2014). These movies projected the district and the precarious human conditions in the so-called dumps. The landfill was opened by the end of the 1970s and was closed in June 2012, leaving more than one thousand families of former pickers, including children and adolescents living there. During 34 years of operation, it reached a volume of 8.000 tons of trash per day (IBASE – Instituto Brasileiro de Análises Sociais e Econômicas, 2005), creating a "mountain" of solid waste that became higher than 40 meters.

Jardim Gramacho is located in Guanabara's Bay and makes part of the municipality of Duque de Caxias, which occupies an area of the metropolitan region of the State of Rio de Janeiro called Baixada Fluminense (lowlands). 18.951 inhabitants live in the district,

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[1] The designation photovoice is understood as an acronym for voicing our individual and collective experience.

distributed by 5.701 residences (Cárcamo, 2013). The district has an infrastructure with precarious housing and problems of sanitation, access to transportation, health, education and a good part of its economy is still focused on the activity of picking, selling and recovery of recyclable materials, in which many children are inserted. The district suffers with serious structural problems, such as dirt and foul odor. As almost all the peripheral communities in Rio de Janeiro, the community is stricken by the violence and lack of security caused by drug trafficking. There is a high incidence of chemical dependency of youngsters and adults.

The Quatro Rodas community occupies the area closest to the ramp (a place where the trucks dumped the materials and waste when it was a sanitary landfill) of the deposit of the Metropolitan Landfill of Jardim Gramacho, where large amounts of garbage still remain and now are deposited illegally. It is estimated that there are 100 houses build, most of them with materials such as wood, tin, paperboard, and some of them in masonry, but without drinking water and sewage networks. The garbage occupies almost all the spaces of the community like a blanket in the streets, piled as recyclables in the corners of the houses and stuffed in bags in the short walls.

The closing of the sanitary landfill, in 2012, increased the social segregation and affected directly the work and income generation of the families that started to be totally dependent of social assistance programs such as "Bolsa família", or even illegal picking activities. The participation in this social program is low due to the "minimal requirements of the program itself, which contrast with the reality of the neighborhood" (Uglione, 2018, p. 1603). The low number of children enrolled in schools and the high number of adults who do not has an identification document worsen the access to the government assistance programs. It is common to see many children in the streets, in the football pitch, next to the ramp or in the yard of the houses still exercising recyclable material picking activities.

The investigation program "Olhares do Gramacho": a field report

The social and research development platform "Eyes of the street" [2]was created in 2015 aiming at developing playful and artistic workshops that use photography as element of visual literacy, especially with children and young people. The project is focused on the collaborative visual investigation-action by putting their participants as visual narrators of their own stories. The first edition of the project "Eyes of the street" was performed in May 2016 with children and young people of the peripheral districts of Arruda and Santo Amaro, in the city of Recife. In July 2016 the project developed participatory photography workshops with women and mothers, of Felupe ethnicity, from Suzana and Varela tabancas, in the Guinea-Bissau, with the support of the non-governmental organization Voluntariado Internacional para o Desenvolvimento Africano (International Volunteering for the African Development) (Meirinho & Januário, 2018) and that culminated in several photographic exhibitions in Guinea-Bissau, Portugal and Brazil.

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[2] Further information can be found at https://www.eyesofthestreet.org

In 2017 the social platform "Eyes of the street" started the first contacts with the NPO Resgate da Infância Social (Rescue of Social Childhood)[3], and the producer Mairarê[4], to perform the project "Olhares do Gramacho". The action was funded by a crowdfunding called "Photography for sustainable capacity building". In 56 days of campaign by the digital platform Crowdfunder[5] an amount of £2.590,00 (equivalent to R$ 11,500.00, at the time), donated by 34 stakeholders, most of them European and Brazilian. All the financial resource was applied in transportation logistics, remuneration of the production staff, social educators and young monitors living in Jardim Gramacho, as well as in the purchase of materials for the workshops and the exhibition. The 13 photographic cameras used were donated by stakeholders of the project, by mobilization actions on social media in the year of 2018.

The workshops started on November 5, 2018 and were performed at the headquarters of Casa Amarela Humanitarian Association, which acts since 2005 in Jardim Gramacho. For six consecutive afternoons, the 16 children and adolescents, aged between 4 to 15 years, attended the project meetings that culminated in the photographic exhibition "Olhares do Gramacho", on the Saturday, November 10.

During these six days discussions and technical training in photography were introduced by playful dynamics. All the photographic excursions made by the Quatro Rodas community were made in partners, suggesting that they took pictures of the neighborhood's living and what was very important for each one. By the end of each day, a time was taken to apply the step of the methodology photovoice (Wang & Burris), which consisted of projecting and discussing with the group the photographs produced (Palibroda et al., 2009). Questions such as affections, characters, community habits and practices, identification and self-representation, through selfies, spaces, playful territories and plays, and relations with the objects disposed or reused by the community. The consumption and disposal were theme of daily conversations with the participants, due to the importance they gave to their visual productions and the debates. This topic allowed us to raise questions and reflections with the group in relation to consumption, material waste and social and human disposal, as well as debates about the type of access to such goods, as receptors of the products discarded, for being residents of sanitary landfill area and sons and daughters of former waste pickers.

To finish the project's intervention, the choice of the photographs and mounting of a final exhibition in the outside wall of the Casa Amarela Humanitarian Association was conducted in the center of the Quatro Rodas community. Each child and adolescent choose two photos, which were printed in photographic paper and exhibited in a clothesline at the street.

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[3] Further information can be found at www.ongriso.com.br

[4] Further information can be found at www.mairareprodutora.com

[5] Further information can be found at https://www.crowdfunder.co.uk/photography-and-sustainable-capacity-building

Figure 1: Playful dynamics performed in the
workshops of "Olhares do Gramacho" project

Credits: Andressa Milanez

Figure 2: Children and young people in their first
contact with the photography equipment used

Credits: Andressa Milanez

Figure 3: Choice of the photos for exhibition

Credits: Andressa Milanez

Figure 4: Final exhibition performed
at the wall of Casa Amarela

Credits: Andressa Milanez

Views on the disposal: the building of meanings given to the trash

Several themes and photographs were produced by the children and young people during the project "Olhares do Gramacho", which would give numerous approaches and analytical cuts for this investigation supported by the application of photovoice method (Ewald, 2001; Wilson et al., 2007). The theme chosen for this article goes through the frequency of talks with the participants during the workshops and also an everyday subject in the Quatro Rodas community: the relation of disposal of consumer goods found in the trash and dumped in Jardim Gramacho. Every day, through the photographic excursions by the community, we passed by heaps of garbage, found in the images produced by the cameras of the youngsters.

The children and adolescents are recognized in several studies on consumption as key and active participants in the strategies of consumer good acquisition such as toys, technologies, clothes, among other objects that connects them to a symbolic status of style and belonging to the traditional consumption. Childhood can be noticed as more

and more immerse in a society in which you are what you buy (Klein, 2001). Following Naomi Klein, other publications discuss a culture of child consumption and consider children in an essentially commercial world, thus being seen as premature, naive and defenseless consumers. We do not intend to enter into the debate that Buckingham (2012) raise about the strategies of marketing directed to a consumer child, or discuss the possibility that children are the active and competent subjects in the consumption that goes against the conception of innocent and powerless individuals.

In Jardim Gramacho, the children and adolescents live the same models and contexts of consumption (Miller, 1995), which are different in the acquisition of goods and services and becomes "a practice in the world and the way we build the understand of ourselves in the world" (Miller, 1995, p. 30). The children presents clearly the worry of being inserted in the consumer culture when they show to know all the brands and products they are interested in, while many of the objects that they acquire come from the disposal and the act of "throwing away", which puts them at the margin of the formal and traditional environment of consumption. For this group of children, toys, accessories, clothes and objects are once more configured in the original situation of utilization, even that being things that the purchasing "society" wanted to get rid of and replace (Bauman, 2005).

The young people participating in the project "Olhares do Gramacho" understand clearly the system of abundance and replacement of something that is no longer useful, is old or damaged by the need of something new for the consumers with economic access. Their photographs of objects disposed deflagrate the awareness that the access to the goods comes from their coexistence with the garbage and they describe very properly and spontaneously that they feel like human receptables of all the things that no longer serves to be used by those who are outside the community, in the urban centers of the city of Rio de Janeiro, in their complex system of inequality.

Most of the participants in the project rarely exits from the community context, and only get in contact with other realities or individuals when they go to the school or the downtown of Duque de Caxias, following the same metaphor of the territorial prototype of the excluded ones. These are the moments when they get in contact and start to be affected and impacted by the same symbolic meanings, cultural structure and consumer codes, whether in the family talks, school environments or of contact with the media products, especially from the TV, because the access to the internet and technology is still very restrict.

The children and adolescents are aware that they are a repository of disposal of everything that becomes obsolete for the consumer culture, ensuring the perception that they are out of a place of privilege of acquiring goods, where most of the population wants to be. The garbage represents the place of human rejection and objects that reflects directly in the low self-esteem, associated to the poverty and exclusion. They meet and recognize themselves based on what Goffman (1988) understands as deteriorated social identity of stigmatized individuals, who are seen as weird. Of people caused to feel inferior, engaged in the logic of waste consumption.

Even with several problems of sanitation, the playful consumption of playing in childhood is represented in the photographs in a precarious and inhospitable environment, with the existence of diseases caused by the trash deposited in the site for more than 30 years. Such perspective of consumption can be seen in the Figure 5 of the adolescent Cassiane[6], 12 years old, which photographed adolescents taking bath and jumping in the pound of treatment of the old sanitary landfill. Their playful spaces of plays and games are full of garbage and human waste and the plays happen by seeing the children barefoot running around toxic substances and a blanket of garbage that covers the streets. The risk of contamination by intestinal infections is very recurrent between the children and residents of the Quatro Rodas community.

Figure 5: Photograph of Cassiane (12 years old)

Credits: Cassiane

The theme of the toy and its symbolic representation for the childhood and adolescence was another matter highlighted in the photographs produced by the participants. We can start from the perspective that the toys in general are objects of the child universe that gives life by playing, to the ludic (Brougére, 2008). We can see that by the toy the child appropriates from the real world, relates and integrates culturally, being a very valuable object in childhood, inside the world of goods (Douglas & Isherwood, 2013). However, the toys in Gramacho are not configured only by the representation of the fable or fantasy associated to pets, famous characters, cartoons or super-heroes. The imaginary situation in which the child assumes roles and represents behaviors is for the group of youngsters of Jardim Gramacho through the damaged toys. This argument can be seen in Figure 6, of the adolescent Cassio, 12 years old, who photographed a doll buried in the street, with only the head outside.

6 In this article we used pseudonyms for all the participants for confidentiality and with the aim of protecting their privacy (Marshall & Shepard, 2006).

Figure 6: Photograph of Cassio (12 years old)

Credits: Cassio

Playing with disposed dolls and damaged toys is common there. Thinking about the possession of goods removed from the trash is that there is a chance of possessing a given object, as in some cases, such as toys, are seen as prestigious symbols (Goffman, 1988). To Brougére (2008), among the social functions of the toys we can highlight the support of affective relationship. In other words, to possessing it includes a prestigious value that gradually is being built from the convergence between the image bearing symbolic values and social significance and the social function of the toy. The reaction of specificity with the toy for the children of Jardim Gramacho remains in the experience of possession, inserting the child in the universe of consumption, but in the recycled way in relation to the use of such objects. The children give meanings to the discarded toys, gaining new logical relationships in which they become a loyal mirror, not of the reality outside, but of the cultural and symbolic reality of the community, in connection with all the culture of consumption and media that the children start having access to. To see how these toys are reappropriated and discarded in the street, sometimes without so much attachment, is to face the image and the cultural world of this group of children and adolescents.

Many youngsters, when seeing the images of the objects that were thrown away and reused in their photographs, said that having toys, furniture, clothes and accessories taken from the trash was always common for them, being reused without questioning the dignity of the access to such goods. Such possession denotes more than simple objects: represents a social code of inclusion in an inverted society of consumption. At the same time they receive the discarded products routinely, the children and adolescents are inserted in the system of consumption in which the childhood is a powerful target of the media gear of consumption (Souza, 2016), when they recognize these objects from their brands and associations to advertising.

Finally, the last theme of analysis in this article is related to the images produced by the participants of the utensils used at home and its extension to the street as different codes of significance. Many objects composing the house filling such as appliances, furniture and electronic devices that are obsolete and forgotten are presented in the street environment as an extension of the house and represent the disposal environment of Jardim Gramacho, as can be seen in Figure 7. The photograph of the couch in the street, taken by the adolescent Anderson (14 years old), represents the object as a relic kept by a family, which started to be of collective use, but inserted in a new order and a new meaning as part of the street's collection. The consumption ritual of goods in a house, as well as the tidiness and organization of its good, follows the same logic of the disposal. Many objects enter in the home and the residents start to have a bookcase to keep it as decorative prize found in the trash that gain a new life by ornamenting the household space. Even having lost their functionality, in some cases other uses are given in a new esthetic and decorative arrangement, instead of its functionality.

Figure 7: Photograph of Anderson (14 years old)
Credits: Anderson

The attachment to material goods by the children and adolescents is related to the importance that these objects have inside an external consumption code, or in the conditions of some objects, in a wicked fable where everything can be found, but is already damaged. As the contemporary consumption model is focused on the immediate devaluation of old objects, it generates a dissatisfaction with the identity acquired in this culture. The importance is in the consumption object itself and in the significance system attributed by the children and adolescents to the social and cultural relations and not in the acquisition of values (Douglas & Isherwood, 2013).

The analytical cut shows that social hierarchy is not resultant from the economic value of the consumer goods, but from the meanings of possession in a type of "collective

agreement" of representations. In Jardim Gramacho the objects receive a new meaning in a chain of value that usually attributes importance to things that can generate profit. On this view, even the garbage can be transformed in financial value, due to the possibility of renewal of the raw material through recycling.

FINAL CONSIDERATIONS

This article is based on an analysis cut of a visual investigation-action project intended to conduct a social mobilization for a community development, focused on the childhood and adolescence, applying the concepts and strategies of photovoice method (Wang & Burris, 1997). The photographic image was designed and used as a tool of documentation and social mobilization at the same time that presented visual reports and discussions with the researched group from the cut around the logic of consumption and the relationships with the garbage and the contemporary disposal environment (Uglione, 2018). Photography showed to be a highly flexible methodological tool that allowed us to cross barriers of significance and representation. The image assumed in this investigation a role of a catalyst of talks and reflections on the concerns of this group of children and adolescents, supporting an analytical process of preoccupations about children living in dumps and their childhood context from antagonistic and excluding poles that places them as protagonists of this research.

We can see by this cut of images analyzed that childhood transcends the potential of the society of protecting children and adolescents inside and outside the dumps. It is a complex and embarrassing context to be seen and analyzed, especially by the strangeness it evokes and causes on this new esthetics of representation by those living in this environment.

The paper presents the understanding about the consumption of disposable objects for children and adolescents, and goes through a process of objectification. It should be understood through the dialectic of inequality of acquisition and access consistent with the cultural contradictions in which they are inserted. We agree with the argument of Douglas and Isherwood (2013), who understand consumption as a communicative process of affirmation of values, practices and social rituals, serving as forms of inclusion and exclusion of children in the social circles. Apart from the utility values, the goods disposed and found in the trash make part of the constitution of social relationships and identities, of belonging to or distancing from the consumer society. They are out of the daily activity of consuming, which excludes them from the process of identity significance of social participation.

Inserting children and adolescents in the universe of consumption represents a childhood that lives with goods discarded in the trash, from the income generated by materials accumulated in debris in the yards of the houses by the families, as income generation, or even as a priority social group receptor of the donations of entities and people that goes to the site and deliver what they no longer use or need to put in the

"trash", activating a new cycle of consumption called sustainability or attitudes of compassion and sympathy with the social groups most in need.

Translation: Lilian Ferrarin Zibemberg

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Children, digital screens and family: parental mediation practices and gender

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Abstract

The objective of this article is to explore the gendered characteristics of digital parenting and parental mediation through a qualitative study developed with families and children in Argentina. Diverse typologies have recently been elaborated to better understand parental mediation of digital screens. Quantitative studies have correlated different styles of parental mediation with sociodemographic variables and have also assessed their effectiveness in preventing several online risks. In this paper we use qualitative data from a research developed using the technique of technobiographies to construct an in-depth approach to children's practices and representations with multiple voices involved (parents, teachers, school authorities). As we show, different types of parental mediation are associated to mothers or fathers, following more broader gender ideologies and stereotypes. With insights from different families, we built research questions that state that there is a gendered division of digital parenting.

Keywords

parental mediation; Argentina; digital screens; children

Crianças, telas digitais e família: práticas de mediação dos pais e gênero

Resumo

Este artigo tem como objetivo explorar as características de gênero da parentalidade digital e da mediação parental através de um estudo qualitativo desenvolvido com famílias e crianças na Argentina. Recentemente, diversas tipologias foram elaboradas para entender melhor a mediação dos pais em relação às telas digitais. Estudos quantitativos correlacionaram diferentes estilos de mediação parental com variáveis sociodemográficas e também avaliaram a sua eficácia na prevenção de vários riscos online. Neste artigo, usamos dados qualitativos de um estudo que recorreu à técnica de tecnobiografias para construir uma abordagem aprofundada das práticas e representações das crianças com várias vozes envolvidas (pais, professores, autoridades da escola). Como mostramos, diferentes tipos de mediação parental estão associados a mães ou pais, seguindo ideologias e estereótipos de gênero mais amplos. Através de dados provenientes de famílias diferentes, construímos a hipótese de que existe uma divisão de gênero na parentalidade digital.

Introduction

Parent-child care relationships have changed in recent years. The emergence and diffusion of multiple digital screens connected to the internet – such as tablets, notebooks, game consoles and smartphones – presents new challenges for contemporary parents. The early adoption of digital media at increasingly younger ages constitutes the starting point of this article. The relationship between children and the media has been a research issue for the last decades: around the 1980's, the television was the main target of researchers as it presented new demands and research questions that had to be answered without a theoretical background available. Television was "a problem to be solved" (Duek, 2011, p. 75) and the strategies that were used to build an approach to its uses and appropriations were intuitive and organized through fear and ignorance. The formulation of the concept of parental mediation appeared as a possible answer to social demands: what should we do regarding children and television? What can we do? Which might be the consequences of the mere exposure to television? These questions arose a new field of both research and of theoretical development that has changed with the appearance of new devices and demands.

In this sense, diverse typologies have ordered and classified the multiple interactions that parents deploy with the intention of moderating the encounter of children and media content. The constant worry of adults is reflected on media articles and researches that aim to propose global strategies to create an approach to the relationship between children and media. These attempts extend the preoccupation but their proposals, as they are general and non-representative of the particularities and varied situations that children all around the world go through, are mere symptoms of contemporary problems that appear in the adult-child relationship. Lists, tips, recommendations and YouTube tutorials appear in different apps and pages with guidelines for parents as an attempt to answer social worries regarding parenthood. In sum, parental mediation is a concept that has grown and developed along the years to answer the need for theoretical and practical knowledge to contribute to the understanding of the complex and tense relationship between children and their environment in general, and with the screens in particular.

In this context, we propose a particular approach to this matter using qualitative data. In this article, we use a set of biographical interviews and focus groups with children between eight and 11 years old, from middle-class urban families, in different cities and regions of Argentina. The research project in which this data was collected was titled "Childhood, gender and ICT: a study of the 'technobiographies of children in Argentina'". The general objective of the project was to identify gendered trajectories linked to devices, media and technology. One of the specific objectives was to explore the relations between gender, parental control and family-level negotiations. And that is the key aspect that we aim to analyze in this article: the diverse ways through which families establish

different sets of rules, negotiations and follow ups for children and screens, and the role that gender plays in this process. With this qualitative material, we propose to examine the supervisory, control and mediation practices that parents develop on a daily basis regarding the uses of devices connected to the internet by their children.

Parental mediation in the internet era

A general and accepted definition of parental mediation should be set up right at the beginning of this section: "the notion of parental mediation indicated the varied practices that parents adopt in order to manage and regulate their children's engagement with the media" (Mascheroni, Ponte & Jorge, 2018, p. 9). The literature on parental mediation was initially developed focusing on the activities that parents performed to model their children's television consumption (Austin, 1993; Banks & Gupta, 1980; Nathanson, 2001, 2002; Pereira, 1998; Warren, 2005). A scale was proposed to measure different styles of mediation: instructive, restrictive and coviewing (Valkenburg, Krcmar, Peeters & Marseille, 1999). Valkenburg et al. (1999) and Natansohn (1999) define these three mediations and explain their principles. The active mediation assigns an important role to dialogue between parents and children; the restrictive mediation involves parent-children communication if the form of rule-settings and with follow ups regarding the respect of the rules; co-viewing is exactly what its name claims: a type of mediation that assumes that parents and children are exposed simultaneously to media content. This literature noted that parents had an active role in regulating their children's exposure and experiences with television. "It also assumes that interpersonal interactions about media that take place between parents and their children play a role in socializing children into society" (Clark, 2011, p. 325). Socialization is one of the core aspects to take into account when approaching parental mediation: screens seduce children and "have conquered a geographical, social, relational and temporal space in families offering them versatile possibilities of interactive and customized entertainment" (Ponte, Simões, Batista & Castro, 2019, p. 40). Even though in households the unit of analysis are the families, the social contact with others appears inevitably in the forms that rules, limits and worries are approached by parents. Nobody wants their children to be excluded because of too restrictive rules at home but, at the same time, nobody wants to allow unrestricted access to connection and media content.

The limits of the three positions regarding parental mediation are related to two dimensions: the first one is that the strategies that parents might use are directly linked to gender, age of the children but also with parental styles and socio-economic background (Ponte, et al., 2019); the second one has been examined by Clark (2011) who proposes that parental mediation theories should be revised taking into account the new modalities of the digital age. Regarding parental mediation of online activities, Livingstone and Helsper (2008) used a survey to examine parental strategies and their correlation with a range of risks, noting interestingly that co-use was not effective reducing online risks. Since cyberbullying has become a major issue of public interest, Mesch (2009) explored

the effect of specific online activities and the role of parental mediation in moderating the risk of being bullied, again finding that most parental activities are not effective.

New inquiries unveiled new demands on research: the individualization of screen time with the use of tablets, mobile phones, computers and game consoles were included by the European network "EU kids online" in a new classification of parental mediation strategies (Pasquier, Simoes & Kredens, 2012). Five parental mediation strategies were defined: 1) active mediation of internet use (to establish dialogues about the use and the content); 2) active mediation of internet security aspects (to present recommendations of both safe and responsible use); 3) restrictive mediation (to establish limits to time, contents and online activities); 4) technical mediation (through the use of software to filter and/or to restrict access to content) and 5) monitoring (to verify the children's activities after their use).

Different styles in parental mediation are correlated to several socio-demographic characteristics of parents and also to their digital skills (Kirwill, Garmendia, Garitaonandia & Martínez Fernández, 2009). A recent study states that both parents and children "are making choices about media and parenting based on their individual values and priorities but also that these decisions are significantly shaped by their specific family arrangements" (Mostmans, 2016, p. 493). In the same sense, qualitative studies have shown that digital parenting is part of overall parenting styles and relationship patterns in families (Rosen, Cheever & Carrier, 2008). Nikken and Schols (2015) conclude their study claiming that parents "have a broad view on the role of media for children that goes beyond the risk-benefit paradigm" (p. 3432).

Parental mediation is both a relevant and contemporary subject but also one that has to be constantly redefined as a result of the changes that technology prints to social practices. Livingstone and Byrne (2018) recognize that even though parental mediation is a task that demands from parents a certain level of intervention in their children's online activities: "parents are feeling challenged – especially as their children use mobile devices that are difficult for parents to supervise and technologically complex services that parents may not understand" (p. 20). They add "whatever is *normatively* expected of parents, there are *practical* limits to what they can do" (p. 20). In sum, parents are challenged, children are exposed and there is a constant tension regarding what they can, should and may do with screen-time (Blum-Ross & Livingstone, 2018). According to "EU kids online", "girls receive more of all types of parental mediation except technical mediation" (Livingstone, Kalmus & Talves, 2014, p. 196). Considering the close relationship between parental mediation strategies and the context in which these practices are developed, the link between parental mediation and gender has also been examined and shown to be highly relevant. Digital parenting appears to be mostly a task of mothers or other feminine caregivers (Valcke, Bontea, de Wevera & Rotsa, 2010) and the distribution of daily tasks at home regarding children-care tends to be assigned to women as a result of cultural distribution (and reproduction) of gender roles at home (Benítez Larghi & Duek, 2019).

The gap that this article tries to address is the lack of sustained research on the matter in Argentina. In this direction we produced qualitative data in order to have an in depth first approach to the topic. Argentina is currently the Latin American country with the highest internet connectivity rate in homes (63,8%). With a population of 44,27 million inhabitants (INDEC, 2017), connectivity to 4G networks went from 5 million users in 2015 to 29 in December 2018 and the two main problems of the country are rates and speed (Giudici, 2018). 80,1% of the population has access to internet connection with an average of 4 hours 11 minutes a day (SINCA, 2017). Six out of ten inhabitants (62% of the population) use an individual mobile phone and, even though there is no official data, children have access to a mobile phone at the age of 10 (the average was constructed with the data of the current research). These pieces of information imply two dimensions: there are high connectivity levels in Argentina and there is a specific preoccupation that appears when children have access to their own devices.

As we have already mentioned, the relationship between parental mediation and gender has not been analyzed in depth in Argentina. There are no inquiries that have aimed, from a qualitative perspective, to understand how parental mediation strategies are built and deployed regarding gender. We still know very little about the tactics children display in relation to parental control strategies, and how these are affected by gender. This is precisely the vacancy area that this article tries to fulfill with data and analysis.

Methodology

In order to examine the gendered characteristics of digital parenting and parental mediation we explore how different types of parental mediation (as defined by Pasquier et al., 2012) are associated with a particular gender (feminine/masculine) following the heteronormative gender system of role assignation. This division of labor is correlated with gender ideologies and stereotypes on women and men characteristics (Benítez Larghi & Duek, 2019). Therefore, different interventions regarding the digital screens are seen as more typical of mothers and others are seen as father's responsibilities. Based on previous research, we intend to further elaborate on digital parenting as a gendered labor.

The data used to explore these research questions comes from an extensive fieldwork which combined different tools and methodological approaches to compose technobiographies. A technobiography focuses on the interviewee's encounters with devices and technologies "at various times and in various locations throughout their histories" (Ching & Vigdor, 2005, p. 4). The technobiography is a result of multiple interviews with key informants that surround the daily lives of the subjects. We focused on children and, from them, we organized focus groups with peers, interviews with their parents, their teachers and authorities of the schools they attended. The objective of the technobiography is not the confection of an inventory of devices but the comprehension, in its own particular context, of the meanings around practices and representations built in and through technology.

The methodological strategy of the project consisted of the realization of 24 focus groups with five to six children each (totaling approximately 130 children), which took place between March and November 2017. Considering the six regions of Argentina[1], we selected one city per region and then, at each city, a public and a private school were chosen. At each school we arranged two focus groups: one with girls and another one with boys. The conversation during the focus groups was guided by one researcher (while another one took notes) and covered issues about typical uses of electronic devices, representations on gendered practices, perceptions of parental mediation (such as what rules and supervision of their practices they acknowledge); fears, perception of risks and protective practices while being online. At the end of each focus group, we asked the children involved to draw themselves and their peers, while doing typical things with electronic devices.

After each focus group, we chose one boy or girl from each of the groups to perform individual interviews (totaling 24). The selection of these boys and girls was made according to what we learned about them during the interactions at the focus groups and following theoretical criteria: we tried to include different familiar situations and tried to select children with at least one brother or sister. These children were interviewed individually with their parents at their homes. Those interviews followed a script of open questions regarding the familiar and personal routines and the uses of electronic devices. The interviews with parents included questions about the availability of electronic devices, choices of purchase and issues of individual or shared use; family arrangements on daily activities; family rules on the use of electronic devices; and also, specific questions about parental mediation (such as typical strategies employed to control online risks, fears and desires about the relation that children establish with electronic devices, personal problematic experiences, etc.). The individual interviews with children addressed their routines at school, at home and other places (such as clubs or sports centers); their relations with friends and peers; typical uses of electronic devices; perceptions on rules and norms regarding desired uses of electronic devices; experiences and fears about online risks, and protective strategies employed; and also specific questions about their views on the role of mothers and fathers in parental mediation. We also inquired specifically in both kind of interviews on the history of the parents and the children in relation to technologies, digital screens, social networks and specific devices (first contacts, acquisition of digital screens, formative experiences, current preferences, and so on).

The field work was developed in 2017 and its results were processed between 2018 and 2019. Interviews and focus groups were recorded, transcribed and afterwards coded in ATLAS.ti by a team of six researchers. During the coding, we combined two strategies: an axial system of codes was used to capture different responses to same questions and to allow us to compare typical strategies in dimensions of interest, using a shared codebook. In addition, we used a bottom-up coding strategy allowing each researcher to create specific codes when needed, in order to capture the singularities of different

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[1] Metropolitan Area and Buenos Aires (AMBA), Center, North East, North West, Cuyo and Patagonia.

familiar arrangements and emerging aspects of the fieldwork[2]. With the interviews coded, we selected key dimensions to construct a technobiography for each of the children. These technobiographies are built with a combination of the perspectives involved in the child's life – parents, teachers, peers and the children themselves.

The result was an extensive fieldwork that in Argentina had never been done before on a research project. From all the available data, we selected ten technobiographies to further explore parental mediation strategies in middle-class urban families.

Gendered digital parenting and parental mediation

Digital parenting involves a series of activities that include the purchase and configuration of various devices such as mobile phones, tablets, computers and game consoles; the establishment of rules of use; supervising the compliance of those rules; solving problems and monitoring children's online activities. Parental mediation refers more specifically, as we have already mentioned, to interactions that occur between parents and children in relation to the latter's online activities in digital screens.

During the observations and interviews of our research, we found that the activities involved in parental mediation are gendered in complex ways: there are certain tasks perceived to be more typical of fathers and others supposed to be the domain of the mothers. As we will see, this gendered division of labor involved in digital parenting is closely related to broader and more pervasive gender stereotypes and ideologies (Talves & Kalmus, 2015) that appeared clearly in the field work. María's mother says:

> Interviewer (I): Does your husband do follow-ups on your children's on
> line activities?
> María's mother (MM): No, as he knows I'm on it, he asks me sometimes,
> but I'm in charge.
> I: Do you think it is a particular activity that mothers do?
> MM: Yes, yes. And my friends have the same activities. It is something
> more of the mothers domain. Men know that we are with our eyes on the
> children's screens.
> I: You mean that they are more relaxed on supervision?
> MM: They are more relaxed in general, you see...

Regarding the acquisition of technological devices, testimonies indicate that it is usually a joint decision of the adults – generally, at the request of their children[3] – but in which the fathers are the ones who execute the purchase, thus deciding on the model, brand and price of the devices. The family of Roberto (44, engineer) and Clara (42, scientific researcher) lives in the city of La Plata in a middle-class house; they are parents of

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[2] These new codes were shared with the rest of the coding team and applied in successive coding waves.

[3] For example the mother of Faustino (11) remembers that after a long time of requesting to have a cell phone, when he was about to turn nine, he gathered the whole family and announced that he only wanted a cell phone as a birthday gift.

Agustín (11) and Emilia (five). As they recall, it was Roberto who was in charge of buying mobile phones, notebooks and video game consoles. Clara says that

> my son, Agustín, goes with his father and they might enter the electronic shop, sometimes just to look. Not even crazy would I be willing to do such a thing. Afterwards I enjoy the stuff they buy, of course, but if I have someone who does the searching for me, chooses and buys the electronic stuff, it's much better.

Regarding the acquisition of digital screens, we found that sometimes there are doubts or disagreements between the adults, and very usually when that is the case, it is ultimately the father who has the final decision. Leticia (46, school librarian) is married to Federico (47, owner of a food stand) and they are the parents of Eugenia (16), Alejandra (11) and Martina (six). The mother recalls that she had a long discussion with Federico, because when they were thinking about buying a computer for their home; she wanted a desktop computer, but he insisted on buying a notebook. "Finally we bought the notebook, because he wanted us to have the newest thing" she says, regretting that decision since she feels that the computer should stay in a fixed place, and not be taken to the bedroom, where they usually find the girls watching films and series. These tensions show, as Morley (1992) identified in a classic text regarding practices around the TV in the living room, that we are not analyzing trivial dimensions but the ways in which power is distributed and executed in each household and also the gender configurations that underly the decisions in the households. It is not about television nor about desktop computers or notebooks: it is about how gender shapes specific practices and decision-making processes.

In relation to the specific dimensions of parental mediation, we also find a genderization of the tasks that each family performs, that thus results in a gendered division of labor. Active mediation of internet use, which consists mainly in discussing uses and contents with the children, is performed by both parents with certain prevalence of the mothers. Almost all of the interviewed mothers in this research declare that they usually do the talking with the children, while fathers seem to be available to talk to them only in especially complicated situations. The conversations recalled by the mothers were mostly referred to security issues, therefore leading us to the second type of parental mediation: active mediation regarding internet security.

The most usual conversations are about contacts with strangers through social networks or videogame's chat windows; about violent content and manipulative games; and about the sharing of private information or personal images. Analía (42, accountant) is married to Esteban (44, lawyer), and they are the parents of Gerónimo (11), Rodrigo (nine) and Juana (six). She recalls having conversations with the children about social networks, the dangers of encountering violent or sexual content online, the adequate age for each kind of online activity. Analía asks her children to tell her with whom they are playing or chatting online, and she has explained the reasons why she considers that some social networks are not appropriate for them. Negotiating, explaining and even

dealing with children tantrums are always perceived as items comprised in "mummy territory". And what is particular about this is that none of the interviewed questioned this division. This is one of the major findings of the research regarding gender and parental mediation.

The prevalence of mothers as interlocutors is also confirmed by the interviewed children, as most of them say that they tend to speak to their mothers whenever they have doubts or feel uncomfortable with online contents. For example, Belén (nine years old) says during a focus group: "it is usually my mum who helps and supervises me when I am using my tablet or the computer, because she spends more time with me". This coincides with previous findings for different countries of the European Union (Ponte, 2018). Active mediation of internet security is most often a task performed by mothers. They are more present at home and they spend more time with the children; and they are chosen by them as interlocutors when they encounter something upsetting online or if there is a problem in chat groups in WhatsApp. These problems appeared constantly during our fieldwork, as children are engaged in many chat groups: aggressive discussions, teasing and inappropriate photos or videos in this context were the main worries of both mothers and children.

Even though the mothers are the main referents to talk about online activities and internet security, when there is *real* trouble the fathers enter the scene. From our observations and interviews, it was possible to understand that everyday issues are handled by the mothers, who are also the ones spending more time with the children and tend to express their worries with other mothers, for instance while waiting for their kids outside the school or the club. But if there is something extraordinary, like a bullying situation or something dangerous going on, both the children and the mothers think that the fathers must act. During a focus group with 11 year old girls, they told us the following story that can exemplify the fathers role: "once a girl was chatting with someone she didn't know, and they arranged an encounter...the mother found out about it, and then the father went secretly to the place they were supposed to meet".

In some cases, we also found that the children feel and express that fathers are the right person to call when they need to be defended. Joaquín (11 years old), for instance, says that if he ever experienced bullying himself, he would rather "talk to my father, because he has a stronger personality, he would go and talk to the authorities, he gives me more security than my mother". It is interesting to note how Joaquín describes both his father and his mother: one is a constant for him (his mother), the other is the exception when "reinforcements" are needed as he considers his mother not have enough symbolic and body strength.

Regarding restrictive mediations, we noted that they are present in all the families observed for this study. Every family sets some rules, time limits or places where digital screens are not allowed. The most pervasive example is the time spent by the family sitting at the table during dinner. For almost all families, this is a time and space where mobile phones and tablets are prohibited. The family rules about digital technologies are usually set by both parents, often with a limited participation of the children (and this is

only the case when they are at least seven or eight years old). These rules generally consist of more or less explicit agreements about schedules, time limits and spaces in which children can use technological devices such as the tablet, smart TV, computer, mobile phone or PlayStation. Children are often allowed to use the tablet or mobile phone only after completing school assignments. Another condition is that they should avoid fighting with their brothers or sisters.

It is also usual to set a time limit for the use of digital devices, and that some content or applications be prohibited, with considerable coincidences among the families of the study. Permission schemes often have modulations, conditions and frequent exceptions; most parents recognize that it is difficult for them to stick to the rules. For instance, Ricardo, father of Matías and Clara, aged eight and six, says:

> our rules are generally very flexible. It depends on our mood and the energy we have to sustain them. The rule is that they can use the computer for some time at night. But maybe one day it's rainy and then it's like ok, go to the computer and goodbye rules.

Restrictive mediation includes two different aspects: first rules are discussed, negotiated and established (even when they might have frequent exceptions). After that, once the rules have been established, they must be implemented. And here is where gender appears again to model interactions: again, it is mostly the mothers who are responsible for supervising the time limits and other restrictive rules regarding digital screens. Here again, the decisive factor is that women spend more time with the children and that they assume the task without discussions nor complaints. Martina (10 years old) said, during a focus group, that "the mums are more aware of what is going on with us, because the fathers are usually working".

There is one significant exception to the more common feminine domain that we encounter in almost all kinds of parental mediation: *technical mediation* is perceived to be a masculine task, mainly because of the digital skills needed, since it involves installing filters or monitoring applications that send messages to parents when certain activities are performed in the devices. For instance, Laura, 42 years old and mother of three children aged 11, eight and three years old, says:

> my husband was investigating about the controls, those that are there to limit the content a bit because you never know very well what appears to them suddenly (...) I don't have much idea of technology so I don't know how to apply those things, how to use them.

Laura recognized that she does not know much about how technology works but she is, at the same time, in charge of supervising her children's connectivity. She does not put herself in a place of knowledge but in one of follow-ups: she can overview online activities, but she acknowledges her limitations. It is interesting to note that, even though she is fully aware of what she can not do, there is no doubt about the possibility

of delegating the task to her husband. She accepts the division of labor even though she knows that, if something happens, she might not notice it nor know how to act and/or react.

Finally, monitoring is a task sustained by mothers, but fathers are sometimes informed, especially if mothers find something to worry about. Among the families observed in this study, we found that monitoring might include some or all of the following: having the passwords of mobile phones, tablets and notebooks; having the passwords for social networks; making aleatory revisions of chat and navigation histories; supervising the list of contacts; charging children's phones in the parental bedroom (to avoid midnight uses) and checking what kind of games or applications they are using. It is interesting to note that many of the interviewed women declare that the supervision and control of children's online activities is something that they own, as it were almost a feminine task. Carola (39, cosmetologist) explains that "this thing of supervising, checking what they do, is mine". On a different vein, Eugenia (41) says that "they – the fathers – know that we take care of it, then they leave it...there is a division of labor". Trust and privacy are two dimensions that appear throughout digital parenting and parental mediation: on the one hand, fathers rely on mothers for supervising and controlling their children's online activities. On the other, mothers are constantly trying to achieve a balance between being cautions – controlling exhaustively what they do – and being confident about their kids.

Conclusions

Contemporary families are digitally connected, and screens play a very important role in both entertainment and formative activities between young children. As media and devices appear, a need to control, to supervise and to regulate exposure demands new concepts and interventions. Following the classification of parental mediation in five strategies (Pasquier et al., 2012), we explored the routines of ten urban families. We found that all families engage, to some extent, in all the five styles of parental mediation, though in different combinations and with different intensities. Some families have more restrictive regulations for their children, basing their parental mediation in control and supervision. This kind of approach has the risk of demining the children's autonomy and right to privacy. Other families, while also relying on some restrictions, invest more time in creating critical capabilities in their children, through dialogue and formative joint experiences. We still need to elaborate further on a possible typology that would allow us to better differentiate among digital parenting styles.

In this study, we were able to show some testimonies on how digital parenting is gendered, following broader cultural representations based on the heteronormative gender system of role assignation and that this genderization is mostly embraced as something natural and uncontested (Benítez Larghi & Duek, 2019). The second research question sustained that parental mediation – as specific activity included in digital parenting – involves a gendered division of labor between mothers and fathers. First, we showed

that the acquisition of technological devices is a masculine task, both among adults and children. Second, we examined the five types of parental mediation in terms of gender roles and we found that women are responsible for most of the activities involved in parental mediation: mothers are doing active internet mediation (talking, orienting, discussing), active mediation of internet security issues, restrictive mediation and monitoring (four out of five activities). The fathers' domain is mainly in the technical mediation, and they also have a role in the setting of rules, a core aspect of restrictive mediations. Exceptions to this scheme appeared when there was a "major" problem to be solved and children stated that they called their fathers (not their mothers) showing how they valued their literal and symbolic strength.

We analyzed in depth the meaning for parents and children of the perceived role distribution that was very clear during our fieldwork. Mothers fulfilled the role of establishing dialogues, supervising and doing follow-ups on what their children do online while fathers participated only in the negotiation pre-connection stage and in specific cases in which both mothers and children demanded their presence, or in technical mediation aspects. It was surprising that even though many mothers stated that they did not have a great experience regarding technology and devices, they assumed full control of their kid's online activities. None of the interviewed complained about the distribution of tasks in their households. The distribution of tasks appeared to be almost "natural": the workload was clearly unequally distributed.

Parental mediation can be defined, within our data, as a task developed by mothers with an "emergency contact" at hand that are the fathers. A possible explanation to this might be that online activities enter the family scheme in continuity with school assignments and follow ups. And this task is historically assumed by mothers and not fathers (Duek, 2014). School meetings, field trips authorizations and purchases of school materials are a task usually fulfilled by mothers and children online activities entered the same structure in the division of family tasks in the households.

From the perspective of children, mothers are the adult who is always present and who is aware of their daily activities. They recognize that their mothers are reinforcing the rules about usage of digital screens at home, making decisions, on a daily, basis about time and limits. Mothers are perceived as main references to talk about online activities and they are the first to be contacted if something unpleasant happens, but if it is something very serious, the father figure appears. Fathers appear as responsible for the acquisition of digital screens (even when they are generally paid with family money), and these purchases are even indicated by children as "a gift from my father".

The naturalization of labour distribution in the households allows us to conclude that it is essential to de-naturalize these social constructs that are reproduced through the generations. There is both a theoretical and practical need to make visible the invisible structures that operate underneath these practices. The questions that arise are so evident that can only be explained by its naturalization: why is it "normal" for children that their mothers occupy the supervision spaces at home? Why do they considerate their fathers as indispensable in a major problem but not in their daily lives? Why do

mothers do not massively complain about their role? Why do fathers choose not to actively participate? The answer is both simple and complex: the labour distribution in the households is established in a direct link to social labour distribution, gender representation, expectations and power. That is why, to understand the ways labour distribution regarding children and online activities must be analysed, as the presented testimonies showed, in a double direction: the first one is the decision of who is in charge of that task, the second is why he/she is the one. The simple part of the answer is related to historical gender constructs that locate mothers as key responsible subjects in the daily errands, tasks and activities children do, should do, are expected to and are not supposed to do. The historical role of fathers-providers who arrive at their homes and should be able to rest from a day at work (Morley, 1992) is still valid in the ways in which labours are distributed. We are not saying that mothers do not work nor that they are not entitled to rest at home. We are signalling that the social representation of the roles is directly related to the historical gender roles that families built all along the XIX and XX centuries.

Technology arrived in society to stay. Parental mediation arises a mater not only of role distribution but of the gendered dimension of technology. Gil-Juárez, Vitores & Feliu (2015) state that technological contexts contribute to the reproduction of gender roles and activities through the differentiation of online activities for boys and for girls. This is also valid to the supervision and parental roles regarding connectivity. Technology is not gender neutral, and with this affirmation in mind, the need to build new knowledge about how children and parents negotiate, distribute and appropriate technologies, devices, roles, tasks not only in their present time but in the future, that unknown field in which current attitudes and assumptions will evolve, consolidate and crystalize. To intervein in the present means to shape a new possible future. The denaturalization of gender roles and labour distribution in the households regarding children online activities will be, undoubtedly, an important first step to build new representations of gender but also of the ways families bond to, and confront with, digital technologies and practices.

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Screens' domestication in childhood: uses and parental mediation in city and rural contexts

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Abstract

The aim of this study was both to characterize screen use by children in domestic spaces depending on their urban or rural contexts and how their families intervene. For this purpose, four focus groups were applied to four- and five-year old children living in Lisbon and Vila Pouca de Aguiar, in Vila Real district. Eight parents from both contexts were interviewed. The main conclusions are: 1) in rural contexts, rather than in the city, children use more screens; 2) parents from both contexts are accountable for children's access to screens, especially smartphones and tablets; 3) the main explanation is parents' concern with children's social exclusion in case they don't use screens; and 4) parents from urban context reveal more risk awareness concerning their children's exposure to technological devices.

Keywords

screens; childhood; uses and mediation; domestic spaces; urban context; rural context

A domesticação de ecrãs na infância: usos e mediação parental em meios citadino e rural

Resumo

Este estudo procura caracterizar a utilização dos ecrãs no espaço doméstico em função dos contextos citadino e rural das crianças até aos cinco anos e conhecer como a família intervém na sua introdução e utilização. Para o efeito foram realizados quatro grupos de foco com crianças de quatro e cinco anos residentes na cidade de Lisboa e em Vila Pouca de Aguiar, no distrito de Vila Real e oito entrevistas semiestruturadas com pais e mães de ambos os contextos, chegando a várias conclusões: 1) as crianças do contexto rural são mais utilizadoras dos ecrãs em casa que as crianças da cidade; 2) os pais/mães de ambos os contextos são os responsáveis pelo acesso dos filhos aos ecrãs, sobretudo smartphones e tablets; 3) a principal explicação é a preocupação dos pais/mães com a exclusão social das crianças caso não os utilizem; 4) os

progenitores/as do meio urbano denotam uma maior perceção dos riscos associados à exposição dos filhos aos dispositivos tecnológicos.

Introduction

Most home environments have several televisions, tablets, computers, and cell phones, all connected to the internet and available to adults and children (Paudel, Jancey, Subedi & Leavy, 2017). Television and tablets are the gadgets children under five years old use the most (Köksalan, Aldim & Göğebakan, 2019; Ponte, Simões, Batista, Castro & Jorge, 2017). In homes, small screens gained popularity amidst the youngest due to their portability, intuitive usability, and rapid capacity to access diverse contents (Kabali et al., 2015).

Screen exposure occurs from only few months old babies, progressing along childhood and youth, and many access technologies from their rooms and watch TV or use their tablets during meals (Patraquim et al., 2018). This screen omnipresence in childhood, especially in pre-school children (Duch, Fisher, Ensari & Harrington, 2013) has aroused concerns within families and health professionals about possible effects on their well-being (Bell, Bishop & Przybylski, 2015; Domingues-Montanari, 2017). This childhood "digitalization" recalls questions on the meaning, availability, and use of these media outlets in children home everyday life. The focus is not only on their protection, but also on family's preparation for new challenges in parental care (Cordeiro, 2015; Przybylski & Weinstein, 2019).

This study poses two main questions: 1) how is screen use in pre-school children homes characterized in city and rural contexts?; 2) what is parents' perception on underlying motivations of screen use by their small children and of their mediation, conscious (or not) of associated risks in this age range?

The rural context is represented by Vila Pouca de Aguiar (hereafter referred to as V.P.A.), a small village in Vila Real district, situated in Trás-os-Montes and Alto Douro province, with a little over 13 thousand people. The urban context is represented by the Portuguese capital, Lisbon, the largest and most populated metropolitan area of the country, where over 547 thousand people live (INE, 2011).

In this paper screen use risks for the first childhood were emphasized, because a child "is not the miniature of an adult", and needs to "be protected from any danger" by their caregivers, on account of a child's inability to make "thorough choices, given the lack of knowledge, wisdom and systemic comprehension of phenomena" (Cordeiro, 2015, p. 110).

Screen access and consumption in domestic settings

Television was the first screen to impose in consumption habits, occupying its place as a sort of families' babysitter (Beyens & Eggermont, 2014). Moving along to the 21st century, television audiences decreased in all age segments (Cardoso, Mendonça, Paisana, Lima & Neves, 2015), sharing children's attention with small, tactile digital screens, with access to diverse applications (Kabali et al., 2015; Ponte et al., 2017).

In Portugal there is also a greater technological environment in households with children (INE, 2015), which enables a screen exposure greater than recommended (Council on Communications and Media, 2013). The *Happy kids'* study (Dias & Brito, 2018) concluded that under two-year-old children are the biggest users of smartphones and tablets on families' encouragement. The authors realized that television is no longer an "electronic nanny", but a mere "background noise" that shares attention with other screens. Brito (2018) showed that under six-year-old children already prefer tablets and many possess one for their personal use. This study has however verified that the television is still on a children's channel while in parallel using one parent's tablet or smartphone. Patraquim et al. (2018) confirmed that those screens' exposure occurs begin in months-old babies, and progresses over childhood and youth, either in the room or during meals. Age is, therefore, the central variable in the analysis of this multimedia society (Cardoso et al., 2015), with and increasingly earlier presence of interactive media and a significant impact on children's lives (Ariani, Putu, Aditya, Endriyani & Niati, 2017).

Children of this digital era were called "digitods" by Holloway, Green and Stevenson (2015). The fact that their parents are the first "digital natives" (Prensky, 2001) enables this *habitus* integration in their children everyday life and there is even a certain enthusiasm and pride in their independence and ability to use (Plowman, McPake & Stephen, 2010). When the family is an active screen consumer, there is a great probability to project in children a positive perception regarding utility and pleasure using such devices (Kabali et al., 2015). Hence, the offer and use of tablets and smartphones to children occurs in family everyday life: as a reward for good behaviour or school results; to distract them while eating or dressing; to facilitate sleeping time; to control tantrums or as educational support (Dias & Brito, 2018; Kabali et. al., 2015; Ponte et al., 2017).

For Ponte and Vieira (2008), using these devices with internet resource, when properly, may lead to better school results, enable information and entertainment access, and promote youngsters' interaction and integration. The authors stress, however, the importance of monitoring usage time, consumed contents, type, and players in interactions. This is foremost important with younger children, because over-stimulation affects their mental/psychological, social and physical well-being (Kardefelt-Winther, 2017). Depressive states of mind, poor language skills, lesser curiosity, frustration, obesity, sight and sleeping problems, etc, are amongst possible effects (e.g. Gottschalk, 2019; Kardefelt-Winther, 2017; Twenge & Campbell, 2018).

Çetintaş and Turan (2018) realized that pre-school children make an intensive use of digital devices and are very at easy with them, though unaware of possible content related dangers. Families are supposed to exert the instrumental power in portable screens

access management by children and in supervising contents (Nikken, 2019). This applies especially to under five-year-old children, dependent on caregivers in their access to technology (Ofcom, 2019).

Mediating different media use by children requires parents to restrict maximum daily exposure to one or two hours, to forbid any screen to under two years-old children, not to allow any screens in children's rooms, to monitor viewed contents and to discuss their values and ideals (Council on Communications and Media, 2013).

Parental mediation in children domestic screen consumption

Generally, families tend to follow strategies to mediate screen use since childhood, acting according to the present and how they pretend them to do in the future (Livingstone, Mascheroni, Dreier, Chaudron & Lagae, 2015). Domoff et al. (2019) show that parental mediation is associated with better childhood performances.

The first typology of mediation based on television and computer internet consumption identified three strategies of action: *active*, that stimulates the critical decoding of contents in the child; *restrictive*, that limits and imposes rules over usage time and contents a child may access; *co-use*, promoting joint use of technology (Nathanson, 1999). As new screens expand with a more individualized use, given their dimension and portability, the European network "EU kids online" (Livingstone et al., 2015) identified five styles of parental intervention: *active mediation* (that integrated co-use), with sharing and discussion along online activities; *safety mediation*, based on counselling and guidance related to risks; *restrictive mediation*, related to rules and prohibitions; *technical mediation*, supported on the use of filters to ban access to certain channels and contents and *monitoring*, in which parents check computer history, social networks access and contacts, phone calls, etc.

Mendonza (2009) refers that restrictive and active parental mediation are associated with more positive results for child development because: 1) children will be less exposed to inappropriate screen content; 2) children become more critical of media contents in general; they will tend to privilege educational contents; 4) they generate better school results. The author added that co-use parental mediation promotes positive effects on parental bonding and on children cultural preferences. Livingstone and Byrne (2018) found that a more favourable parental mediation has been positively associated both to opportunities and to a higher risk possibility during children's online experiences. On the other hand, a more restrictive mediation was associated with lesser risks, but also to less online opportunities lived by children.

Parental mediation may be influenced by the child's gender, age, socio-economic family status, as well as parental style (Livingstone & Helsper, 2008). Baumrind (1991) presented several parental styles: *authoritative parenting*, in which parents are more receptive, yet demanding; *authoritarian parenting*, characterized by higher control and low affection; *permissive parenting*, with a friendly, solidary and undemanding profile and; *laissez-faire parenting*, without involvement and responsiveness.

Despite existing parental mediation styles, it is not possible for parents to permanently intervene over 24 hours, given device and digital contents omnipresence, and multiple tasks to fulfil inside and outside the household (Nomaguchi, 2009). Not to feel so overwhelmed, many parents tend to invest less in parental mediation and to trust more in technology to keep their children busy, especially when daily problems exceed their time, space, energy and finances (Evans, Jordan & Horner, 2011). Limiting media use also demands parents to offer their children alternative sources of entertainment (Evans et al., 2011) and to have enough knowledge to manage technology and/or contents their children access (Nevski & Siibak, 2016; Nikken & de Haan, 2015).

Furthermore, if there are social contexts in which older siblings guarantee, in the absence or unavailability of parents, guidance in media use by younger children, teaching how to use smart apps and choosing age appropriate contents (Nevski & Siibak, 2016), in other contexts they only complicate more, exposing the younger child to age inappropriate contents (Nikken & de Haan, 2015).

Blum-Ross and Livingstone (2018) concur that parents live today in a paradox. They either feel difficulties and concerns, reinforced by many experts, by the relentless flux of digital media in their children's life, acknowledging that exposure time to those devices is physically and mentally harming them, as they enjoy the opportunities, pleasures and conveniences of the digital world in their everyday life. And apart from that enjoyment, parents project themselves into a future that will demand their children the "skills of the 21st century".

Sociodemographic specifications of domestic screens exposure and mediation

Media consumption experience varies according to different social, cultural, political, and economic regional realities. Already in 1998, Livingstone had found several differences in European countries, e.g. two out of three British children had television in their rooms, which contributed to the individualization and social fragmentation in the households. Kabali et al. (2015) also found that children from urban areas are those who possess almost total access to mobile screens and the majority got their own device around the age of four.

Ponte et al. (2017) established a relationship with socioeconomic family levels and found that children's television consumption is higher in low income households, while those from higher socio-economic levels possess more internet access in the different devices existing in domestic spaces. Concerning this matter, Harris et al. (2018) verified that children from low economic resources, especially when from ethnic minorities, tend to present a deficit of digital literacy, due to the lack of access to internet connected devices and contents.

Clark (2013) analysed the presence, use and mediation of technology in American households, according to income and school level, concluding that these variables together influence inequalities in the technological context. When crossing low incomes

and low educational levels, the author found an above average acquisition of devices in households, accompanied by a generational gap in digital experiences. Therefore, parents showed, ambivalently, concerns and restrictions. When relating low income and high education levels, a technological heterogeneity was found, with households highly and poorly equipped. In this association the highest proportion of monoparental families was found, in which the parent trusted his/her digital skills and the mediation abilities, privileging restrictive and active strategies. In the mutual combination of family income and high education levels, an "ethic of expressive empowerment" was perceived, with different practices and strategies to manage restrictions in the use of digital devices and the promotion of offline home activities, and especially outdoors. These families also tend to work with digital media at home, in full conscience of how this makes it difficult to limit digital screen use by their children.

Weber & Mitchell (2008) also refer that not all children live surrounded by technology and there are households with economic resources but without computers, smartphones, mp3 or even PlayStation, in which children are enrolled in sports activities, socializing with friends or reading books.

Method

To answer research questions, an exploratory qualitative approach was developed through focus group sessions with children from V.P.A and Lisbon, together with semi-structured interviews with parents from both spaces, and conducted along April 2019. To enable comparisons between screen use and mediation strategies with these techniques, it was sought to establish family panels with similar income levels, although education levels are higher for Lisbon parents (Table 3). To protect participants' identities, names given to children and parents are fictional.

Four focus group sessions were hence conducted with four to five-year-old children, ten from Lisbon and ten from V.P.A., separated by sex. The decision to conduct sex divided sessions intended to prevent possible inhibitions children might have on the debate about screen use at home and especially about consumed contents. To increase interaction in these individuals with limited expression skills, the minimum recommended number for focus group was gathered (Bryman, 2016). Children under four years old weren't included due to age related language difficulties.

Discussion issues were organized according to family context; screen existence in the household; children's possession and/or access to screens; most watched contents in diverse screens; other (traditional) entertainment practices. The "script" application followed all ethic procedures, as an informal conversation. Prior to session, parents were explained the aim of the study and all procedures; every child participated with a formal authorization from parents and educators.

Sessions took place in the kindergarten of the school group of V.P.A. and of Santo António parish, in Lisbon. Here, the kindergarten was the free time facility (ATL) of

the parish, because data gathering was conducted during Eastern holidays and school groups' kindergartens were closed.

Two panels of four parents were interviewed in parallel, using semi-structured scripts. Parents were chosen according to two basic criteria: having children under five years old and living in one of the two areas of this study. The script was organized according to contextual questions, screen existence in the household; children's age when first allowed to use screens in the household; mediation type in use and content exposure and related parental concerns. These parents' households mostly have a nuclear structure, except for a parent from V.P.A. whose household also integrates the grandmother and the great grandmother and another from Lisbon who lived alone with his daughter. Interviewees' age varies between 29 and 39 years old and their children were between six months and four years old.

Tables 1 and 2 sum up background information on focus groups' children and table 3 refers to parents living in V.P.A. and in Lisbon, respectively.

VILA POUCA DE AGUIAR				
"Pedro"	**"Tiago"**	**"Rodrigo"**	**"José"**	**"Miguel"**
Five years old	Four years old	Five years old	Four years old	Five years old
- Goes home, after school, in a Municipal transport. - Lives with his mom and dad. - Has no extra-curricular activities.	- Goes with his grandmom to her house, after school, until his mom arrives from work (18h). - Lives with his mom and dad. - Has no extra-curricular activities.	- His mom picks him up at school and they go home. - Lives with his mom, dad and seven months-old sister - Has no extra-curricular activities.	- His dad picks him up at school and they go home. - Lives with his mom and dad. - Has no extra-curricular activities.	- Goes home, after school, in a Municipal transport. - Lives with his mom and dad. - Has no extra-curricular activities.
"Beatriz"	**"Cláudia"**	**"Benedita"**	**"Gabriela"**	**"Inês"**
Five years old	Five years old	Four years old	Four years old	Five years old
- Her mom picks her up at school and they go home. - Lives with her mom, dad and little six months-old brother. - Has taekwondo on Tuesdays and Thursdays until 18h30.	- Her mom picks her up at school and they go home. - Lives with her mom and dad. - Has no extra-curricular activities.	- Her dad picks him up at school and they go home. - Lives with her mom, dad and nine years old sister. - Has no extra-curricular activities.	- Her mom picks her up at school and they go home. - Lives with her mom, dad and 12 years old brother. - Has taekwondo on Tuesdays, Wednsdays and Thursdays until 18h30.	- Her mom picks her up at school and they go home. - Lives with her mom and dad. - Has karaté on Mondays and Thursdays until 18h.

Table 1: Characterization of the children living in Vila Pouca de Aguiar

LISBON				
"João"	**"Martim"**	**"Duarte"**	**"Lucas"**	**"Afonso"**
Five years old	Five years old	Four years old	Four years old	Four years old
- His mom picks him up at school and they go home. - Lives with his parents and 11, eight and two years old brothers. - Has no extra-curricular activities.	- Goes with his grandmom to her house after school, until his mom arrives from work. - Lives with his mom. and dad - Has no extra-curricular activities.	- Both parents pick him up at school. - Lives with parents and eight and two years old brothers. - Has football on Tuesdays and Thursdays.	- Both parents pick him up at school. - Lives with his parents and 11 years old sister. - Has no extra-curricular activities.	- Both parents pick him up at school. - Lives with his parents and six years old sister. - Goes swimming twice a week.
"Eva"	**"Carolina"**	**"Amélia"**	**"Sofia"**	**"Violeta"**
Four years old	Five years old	Four years old	Five years old	Five years old
- Her mom picks her up at school and they go home. - Lives with her parents and one, seven and eleven years old sisters. - Has gymnastic on Tuesdays and Thursdays.	- Both parents pick her up at school. - Lives with her prents and her four years old brother. - Goes swimming on Wednesday.	- Her mom picks her up at school and they go home. - Lives with her mother during the week and with her father and siblings, aged 12 and 21, on weekends. - Has artistic gymnastics on Tuesdays and Thursdays.	- Her mom picks her up at school and they go home. - Lives with her parents and two, four and eleven year old sisters. - Has gymnastic on Tuesdays and Thursdays and English classes on Wednesdays and Fridays.	- Her mom picks her up at school and they go home. - Lives with her parents and two years old brother. - Goes swimming on Fridays.

Table 2: Characterization of the children living in Lisbon

VILA POUCA DE AGUIAR			
Father "António"	**Father "Carlos"**	**Mother "Madalena"**	**Mother "Judite"**
- 37 years old; - schooling: 7th grade; - gardener.	- 35 years old; - schooling: 9th grade; - merchant.	- 39 years old; - graduated; - teacher.	- 29 years old; - schooling: 12th grade; - geriatric assistant.
Works Monday to Friday from 9am to 6pm. Household composed by him, his wife, two children (three and 14 years old) and by his mother-in-law and her mother. Time with the child: about two to three hours a day (he gets home around 7:30 pm and the youngest child goes to bed at 9 pm).	Works seven days a week from 7:30 am to 3 pm. Household composed by him, his wife and daughter (three years old). Time with the child: daily he picks her up from ATL around 5 pm, and spends the rest of the day with her, until bedtime, around 9 pm.	Works from Monday to Friday, about six hours a day. Household composed by her, her husband and two children (three and eight years old). Time with the child: all the time between 5 pm, when leaving the kindergarten, until bedtime, close to 9 pm.	Works eight hours from Monday to Friday (7 am to 3 pm). Household composed by her, her husband and two children (one and nine years old). Time with the child: all the time between 3 pm, until bedtime, close to 9 pm.

Lisbon			
Father "Pedro"	**Father "Miguel"**	**Mother "Marta"**	**Mother "Vera"**
- 30 years old; - graduated; - children's soccer coach, AEC (Curriculum Enrichment Activities) teacher and *Expresso* (newspaper) chronicler. He works seven days a week in different schedules. Household composed by him and his daughter (one year old). Time with the child varies according to his availability.	- 31 years old; - graduated; - postman. Works from Monday to Friday, eight hours a day. Household composed by him, his wife and his nine-month-old daughter. Time with the child: from the time he gets home until bedtime.	- 35 years old; - graduated; - journalist. Works eight hours a day, Monday to Friday. Household composed by her, her husband and her four year-old twin sons. Time with children: from 6 pm to bedtime (9 pm / 9:30 pm).	- 32 years old; - graduated; - education assistant. Works in seven hours shifts. Household composed by her, her husband and a one year-old daughter. Time with the child: whenever she is not working.

Table 3: Characterization of parents from Vila Pouca de Aguiar and Lisbon

Children participating in focus groups and interviewed parents are not family related. It was important to have access to screen experiences lived by younger children (until three years old) and that was only possible through parents. Furthermore, this option enabled, albeit indirectly, increasing knowledge of screen use experiences by children and of parental mediation by crossing participating children and parents' perceptions.

Because this research has an exploratory nature, are not feasible any generalization from these cases of children and parents from Lisbon and V.P.A. to all children and parents in these contexts.

Results

Child entertainment in participant children free time

Concerning children's contextual information, most V.P.A. children have more free time, as they return home after school, while eight out of ten Lisbon children go from school to extracurricular activities (Tables 1 and 2 respectively). In a study of screen use in the household, differences in children's available time at home, during the week, must be considered.

Traditional play exists in these children's life, but those from Lisbon referred more collective activities (playing cards, football, balloons, hide and seek, catch) talking often about their siblings, while children from V.P.A. referred more individual activities (Lego constructions, super-hero accessories play, cars, playing "moms", etc). This difference may derive from V.P.A. children being mostly cases of one only child. In both groups preferences for gendered toys were perceived: boys referred cars, balls and super-heroes and girls mentioned dolls, cuddly toys and unicorns.

Regarding screens, television was referred by every child, and all with internet connection. Cable TV channels were privileged, although V.P.A. children only referred Panda channel, unaware of the names of others they also watch. Lisbon groups easily identified

what they watched on Disney Channel, Cartoon Network, Disney Junior, Panda and Boomerang channels. The Lisbon girls group also said that they accessed Netflix. Contents seem to be animation and age appropriate. A gendered consumption was note, especially on V.P.A.'s children, and it may also be associated with the majority being an only child, having more autonomy in the contents choice. This factor can also explain why more children from V.P.A. refer they watch television alone. In Lisbon, also Martim and Amelia said they watched alone, him being an only child and her just being with older brothers when she goes to her father's house. The other children from Lisbon referred watching with parents and/or siblings. Daily screen use routines are common to all participant children: they watch when they are getting ready to go to school, when they get home from school and before they go to bed.

Digital devices were not immediately pointed at this stage of the session. Only two V.P.A. children mentioned "Nintendo playing" (Rodrigo) and "watching tablet" (Miguel).

Vila Pouca de Aguiar				
	What they do after school	**Favorite toy / game**	**Television contents**	**With whom they watch**
"Pedro"	Plays outside with little cars and machines	Not referred	Cartoons	With his parents
"Tiago"	Watches television and plays with cars	Playing "à apanhada" (catching each other)	Cartoons	Alone and accompanied
"Rodrigo"	Plays *Super Mário* (Nintendo)	Super-heroes dolls (Hulk); playing 'à apanhada' (catching each other)	Mikey; super-heroes	Most of the time alone
"José"	Plays with legos	Little cars	Super-heroes	Alone and accompanied
"Miguel"	Watches television, enjoys and plays on the tablet	Plays with spider-man costume and mask; super-heroes games and *Fortnite*	Spider-man	With his parents
"Beatriz"	Goes to snack with her mother; practices taekwondo; watches cartoons on television	Dolls; playing "ao machado" (game they play in the playground)	The Peppa piggy	With her mother
"Cláudia"	Plays with dolls; watches television	"I like it better to play hide and seek. But about toys, dolls are also my favorites"; playing "macaquinho do chinês"	Rapunzel	Alone
"Benedita"	Plays with her sister with dolls	"Unicorn Teddy"; "running games"	Minnie	"With my sister, but not with my parents"
"Gabriela"	Plays in the park; goes to practice taekwondo; plays with her dad	Dolls; playing "moms and dads".	Minnie	"With my brother"
"Inês"	Goes to practice karaté; plays with dolls	"I also like to play with a giant unicorn that Santa Claus gave to me"; playing "às casinhas" (on the housemaking)	Mickey Mouse	Alone

Table 4: The entertainment of children from Vila Pouca de Aguiar in the domestic space

		Lisbon		
	What they do after school	**Favorite toy / game**	**Television contents**	**With whom they watch the screen**
"João"	Plays cards	"My favorite, even preferred, is the Sporting Lion"; playing football	*Titio Avô* (Uncle GrandPa)	With his brothers and parents
"Martim"	Watch television	Bouncing balls; the killer clown's game	*Titio Avô* (Uncle GrandPa)	Alone
"Duarte"	Plays with baloons	"The gloves of Porto Football Club"; playing hide and seek	"I see more that of the dragons; that's what I like more to see"	Alone or with his brothers
"Lucas"	Plays football	"My soccer cleats"; playing hide and seek, "à apanhada" (catching each other) and "à cabra cega"	*Bingo Rolly*	With his Parents and sister
"Afonso"	Plays football; watch television	"My football balls"; playing football	"I don't know the name, but I also see that of the dragons"	Accompanied
"Eva"	Goes to the park	"I like all my Unicorns! I have many, many. I even have a big one that I sleep with"; playing "Princesses"	*Patrulha Pata* (Paw Patrols)	With her sisters and parents
"Carolina"	Goes to the park	Teddy bear; playing 'à apanhada' (catching each other)	*Sunny Day.*	With her brother
"Amélia"	Goes to the park	Unicórnios; macaquinho do chinês	*Power Rangers*	Alone
"Sofia"	Goes to the park; rides the bycicle	Mickey doll; playing on the sly; painting books; playing 'moms and dads'	*H2O*	With her sisters
"Violeta"	Walks with her mom	"Teddies and 'babies'"; "we sometimes don't play at all, we walk around the playground talking and so…"	*Tom & Jerry*	With her mom

Table 5: The entertainment of children from Lisbon in the domestic space

Screen consumption and children's perception of use rules

Every child in the study said their homes were equipped with (at least one) television and smartphones. The "tablet" issue was received with great enthusiasm in every session, but a difference was noted regarding possession and/or access between V.P.A. and Lisbon groups – eight out of ten children from V.P.A. own and/or use tablets and, from those, five have one just for themselves. In Lisbon groups, only five of 10 children have access to this device and they mostly come from parents or siblings (Tables 6 and 7).

Privileged contents by most children from both V.P.A. and Lisbon, when using mobile screens, were animation videos and from the Youtuber Lucas Neto. Five children from the rural context, mostly boys, said they also play on the smartphone and tablet. In the Lisbon group, only Martim said he also plays. Using these devices in both spaces occurs mostly in the household, with only a few exceptions (grandparents' house, at the restaurant and in car travels).

Regarding rules perception, children from V.P.A. focus groups revealed less rules perception regarding use. Only Miguel said his mother imposed a time limit because he

was getting addicted – "I may only use half an hour at night (...) and half an hour when I get back from school". Beatriz and Gabriela from V.P.A. approached (the same) content restrictions because it "was scary". The other children said they could watch it whenever they wanted. Several children from Lisbon groups stated they depended on their parents' permission.

	Vila Pouca de Aguiar			
	Tablet/smartphone owner	**What they do with tablets/smartphones**	**Where they use tablets/smartpho-nes**	**Perception of usage rules**
"Pedro"	"My tablet is only mine"	Watch videos (you-tuber Lucas Neto)	Just at home	" I have no rules on the tablet. But I just can see the phone on Sundays "
"Tiago"	"I have an old tablet and a new tablet. I have two of mine"	Games (*Crocodile*)	At home and "when I go to eat in the res-taurant with my dad"	" I don't have rules. I can see at home, when I'm on vacation or when I'm in my room "
"Rodrigo"	"I have one tablet"	Watch "galactic cat" videos	Just at home	"I don't have rules. I can see every days"
"José"	Not referred	Watch videos (*Super Mário*, Lucas Neto and Mickey); games (*diamantes*).	Not referred	"I never have rules. I see when I want"
"Miguel"	"The tablet is only mine"	See videos (youtuber Lucas Neto, *MineCraft* and Spider-man); games (*MineCraft*)	At home and at Grandma's home	"My mom gave me rules, because she said I was very addicted"
"Beatriz"	"I haven't a tablet, neither my mom"	(The youtuber) Lucas Neto	Not referred	"I can't watch cell phones. My parents showed me a doll that looked bad, said bad things to the children" (Momo)
"Cláudia"	"I have a tablet that is my mom's"	"I play games on the tablet. But I don't watch videos"	At home	"I have no rules"
"Benedita"	"The tablet is my sister's"	Cartoons: the Peppa piggy and princesses; games	At home and at Grandparents' home	" I can watch my tel-evision every day, which is the smallest"
"Gabriela"	"My computer is my brother's and mine "	Youtuber Lucas Neto; "I see a game of animals"	Not referred	" My parents don't let me watch [the youtuber] Lucas Neto, because I dreamed that the witch really existed"
"Inês"	"My father has one and I also have one"	Cartoons (*Bingo e Rolly*)	At home	"My parents don't let me watch (the youtuber) Lucas Neto, because I dreamed that the witch really existed".

Table 6: Access and use of digital screens by children from Vila Pouca de Aguiar and their

parental regulation

		Lisbon		
	Tablet/smart-phone owner	**What they do with tablets/smartphones**	**Where they use tablets/smartphones**	**Perception of usage rules**
"João"	Doesn't have	Not referred	Not referred	Not referred .
"Martim"	"I have a tablet that my father gave me"	"I like to play *a game* with trains and that we have to grab coins and run away"	"I can use it in other places, when we go by car, at grandma's house, when I finish dining elsewhere..."	"I have no rules"
"Duarte"	"I have a tablet! Mine and my brother's".	Soccer games; "I see football 'for real'. When Porto's plays, my dad puts it on the tablet for me and my brother to see"	Just at home	"I also have no rules"
"Lucas"	"I have a phone that was my sister's"	Soccer games; photographs; videos (*Paw Patrols*)	At home	"Yes, I just watch it when mom and dad allow "
"Afonso"	Not referred	Not referred	Not referred	"I see when my dad say"
"Eva"	Not referred	Not referred	Not referred	"I don't think so"
"Carolina"	Doesn't have	Not referred	Not referred	"When my parents allow. I ask for it and they say if I can or not"
"Amélia"	"I had three! (..) One is at my mother's house and the other is at my father's house. And I have a cell phone that was my mother's and now I watch it"	"I watch YouTube more often. I see Lucas Neto, the Neto brothers, some cartoons as *Paw Patrols*. I see many things... "	At home	"My mom tells me not to touch on the remote. I have to ask and she allows. I can watch on my tablet, I just have to warn"
"Sofia"	Doesn't have	Not referred	Not referred	"I also don't think so"
"Violeta"	" I have a tablet that Santa Claus gave me"	"I watch more cartoons. *Bingo and Rolly, Paw Patrols...*"	At home	"I use it whenever I want, I think ..."

Table 7. Acess and use of digital screens by children from Lisbon and their parental regulation

Although being only four and five years old, two children from Trás-os-Montes related their skills with digital screens that give them independence in contents exposure and consumption. This was the case of Miguel (five years old): "sometimes I install games. But I already uninstalled them because it was nonsense"; and Rodrigo: "I put games on mom's phone and now I play Super Mario".

Parental participation and responsibilities on children's screen consumption

In interviews with parents we sought to understand for each context children's screen consuming habits in the household, and the related mediation exercise.

The eight people composing the interviewees' panel (V.P.A. and Lisbon) referred they had technological households: (at least) one television, tablets and smartphones. Three parents from Lisbon have computers, as well as António, a father from V.P.A. (gardener, 37 years old), who also states having a PlayStation. Generally, children prefer digital screens, especially tablets, and three parents from V.P.A. said their three and

four-year-old children had that device just for themselves. Television, in the words of V.P.A. parents, seems to be losing its interest for their children (until three years old). One father and one mother from V.P.A. stated that their children "don't watch anymore" (father António and mother Madalena). The other say that they only watch cartoons. Among Lisbon parents, although their children also prefer digital screens, they use them with more control and not alone (with parents or older siblings).

According to most parents, children prefer digital screens for being more stimulating, easier to carry and for enabling more autonomy in the use. Father Pedro (Lisbon) says about his one-year-old daughter "she doesn't like being still (…) to be seated looking at the screen (…) she will end up by liking the smartphone better, because she is always asking". Also, father António (V.P.A.) says his three-year-old son does not like watching TV for being "a screen harder to 'hook' him". Father Miguel (Lisbon) states on his nine-month-old daughter: "as long as it raises her curiosity or calls her attention, she likes it. But she asks more often the smartphone and the tablet, maybe because they are smaller and get nearer". For mother Marta (Lisbon), it is the fact that they choose contents that makes tablets more appealing: "they are more used to watching TV, but a tablet is much more dynamic (…) so they can choose".

Concerning the age their children were when they started using digital screens, two parents from Lisbon referred under one-year-old (father Miguel and mother Vera), and through their smartphones. V.P.A. parents pointed at one year and a half to two years old. However, the most restrictive parents belong to Lisbon panel: mother Marta said her four-year-old twins had access to those screens closer to their present age and that she even got advice from the paediatrician; father Pedro does not allow his one-year-old daughter to have access, despite her constant asking. Overall, though, parents believe there is not a specific age to start using/giving these screens.

For most parents, the pressure of "everyone has them" conditioned their permission. Mother Marta (Lisbon) stated: "parents also have smartphones and they grow up with screens (…) this generation is already born for this; it is almost impossible to forbid it". Older siblings or cousins also influence the first contact and eventual purchase, as they are earlier awakened for viewing different screens (as referred by father António and mothers Madalena and Judite, from V.P.A.).

Parents from V.P.A. gave different answers regarding parental supervision in screen using. Parents António and Carlos, both with three-year-old children, said "sometimes yes, but not always!". These parents assumed that their children watch tablets without great restriction or supervision. Mother Madalena said her three-years-old son can watch freely, but "in the same space we are, while we are watching TV, and mother Judite also relies on the help of her older daughter. In Lisbon's panel father Pedro revealed most restrictive. His one-year-old daughter only watches TV, in the music channel he chooses and always with him present. Father Miguel (nine months-old daughter), said that "television she watches alone, but the tablet she only watches with me or with her mom, because we are afraid she damages the equipment". Mother Marta (four-year-old twins) and Vera (one year and nine months old daughter) restrict screens in the household and

contact time (television every day and digital screens only on weekends) and mother Marta pre-defined videos they may access and "takes a look" while she is in the kitchen. In both contexts it was noted that supervision diminishes as age increases or with older siblings.

Registered activities performed on digital screens included play, watching animation and youtuber Lucas Neto videos and music. Father António (V.P.A.), the most permissive of all parents in this study, and the one who spends less daily time with his son, said his three-year-old son watches Lucas Neto a lot and "I even think it is good for him, because he teaches good things, as saving water, separating the garbage, putting away his toys after playing, not making fun of his colleagues, not being envious... stuff like that!". Father Pedro (Lisbon) says that the tablet may even be interesting in terms of cognitive stimuli: "not like normal games they tend to like, but other types of games like assembling pieces... it may help develop spatial thought and that's important".

Either in Lisbon as in V.P.A. parents refer an instrumental use of screens, essentially in the household, with some exceptions: "in the car" (father Carlos, V.P.A.); "if we got to a restaurant they also take it so in the end of the meal they don't get bored" (mother Madalena, V.P.A.); "when we go to my in-laws, on weekend, while we are there talking and they are a bit fed up with it" (mother Marta, Lisbon).

Parents main concern, either from Lisbon or V.P.A., is the danger of finding "things" they do not understand. But they manifested that their concern would increase when their children get older, as with some who already have teenagers. For now the worry "is about sight, headaches" (father António, V.P.A.), "the sleep cycle and using time" (mother Madalena, V.P.A.), who says she will control more, when the child has school responsibilities, and that technology may influence "social interaction" (father Miguel, Lisbon). Mother Marta (Lisbon) is afraid that "it's very addictive (...) my biggest concern is to give them other options, so they also grow up playing with other types of toys". Father Pedro (Lisbon) says he will encourage especially pedagogically controlled contents that may carry cognitive benefits and with controlled time, because the more time they use, the more likely they are to find age and comprehension skills inappropriate contents.

Discussion

The presence of technological equipment was not influenced by the variable urban/rural households' location of participating children and parents, corroborating both Plowman et al.' (2010) and other European studies' (Ofcom, 2019) conclusions. It was also not affected by the socio-economic condition that in some parents' households from V.P.A. was more disadvantaged, thus confirming Dias and Brito's (2018) conclusion that children live in rich digital environments, even when they integrate economically less well-off families.

Nevertheless, families from V.P.A. revealed a greater contact with the different screens in the household and a more dynamic and independent tablet and smartphones use, contradicting Kabali et al.' (2015) study that evidenced a greater use in city

environments. This may be related to the time spent at home, because when crossing this with after school routines, it is perceivable that most groups of Lisbon children referred having extracurricular activities. And children with more spare time in technological households may fill up "their agenda" with electronic and digital entertainment (Ponte et al., 2017).

The household composition may likewise justify different media consumptions at home. Most participant children from Lisbon have siblings with whom they interact in playing and screen consumption. Nevski and Siibak (2016) had already evidenced sibling impact on younger children screen consumption guidance. The children from V.P.A., mostly single child, revealed a more solitary consumption of screens. Jorge, Tomé and Pacheco (2017) referred that in monoparental and single child families, children tend to be entrusted with "digital babysitting" (Leskova, Jurjewicz, Lenghart & Bacik, 2018).

In this study, four and five-year-old children and under three-year-old children of interviewed parents from V.P.A. make a greater use of small screens, especially of tablets, than children from Lisbon. Cardoso, Vieira and Mendonça (2016) say that smaller, portable and tactile screens enable children to feel more involved and with greater decision power to "control their media diet" (p. 35). Nikolopoulou (2020) thinks it is natural that pre-school children, still with little fine motor skills, feel more attracted to tablets because they only demand using one finger.

In terms of parental mediation, children from V.P.A. transmitted less conscience of screen use rules. Only Miguel revealed a time restriction for being "too addicted". Most children from Lisbon showed some awareness of parental intervention, as many said they were dependent on parents' authorization to use screens. But in this study the restrictive mediation was mostly identified (e.g. Livingstone et al., 2015).

All parents from the interviewees' panel were or are the direct "sponsors" of their children's technological use (Kabali et al., 2015). A nine-month-old baby's father (V.P.A.) stated that his daughter started using smartphones and tablets since she "started moving", in line with Cardoso et al.' (2015) findings. The access derived from a birthday gift (father António's family, V.P.A.) or from the generational passage of devices as parents or older siblings get updates (especially in Lisbon groups of children and parents).

Among Lisbon and V.P.A. parents differences were found, but it did not become clear if they are due to a geographical or socio-economical question (academic training and profession), as shown by Clark (2013). The V.P.A. mother with higher education (Madalena, Teacher) was the only who established some rules for screen use to her three-year-old daughter (and eight-year-old son): "they watch it when they get back from school, in the evening, but I don't allow it after dinner. (...) And when they start watching things I don't consent, I take it from them". The remaining parents from V.P.A. do not develop an effective mediation – their children "may watch at night, while they have dinner, when the wake up, when they are having a snack and when they go to bed", exhibiting a passive or *laissez-faire* parental style (Baumrind, 1991) and a feeling that they do not have enough skills to help their children (Nevski & Siibak, 2016; Nikken & de Haan, 2015).

All parents from Lisbon have a bachelor's degree, despite two of them having professions that do not demand such training (postman and auxiliary teaching staff). The most restrictive parent is from Lisbon (Father Pedro) and has the most qualified training and profession: "she has already often asked to use but I don't let her. Sometimes she takes away my phone and I chase her and take it from her. I don't usually ever let her". But he assumes that he will let her use the tablet later, because when well used (Domoff et al., 2019) "it may be interesting for her in terms of stimulus". This parent, who is a competent technology user, establishes *authoritative* strategies at this stage of his one-year-old daughter life (Baumrind, 1991). Others reveal closer monitoring strategies: "one of us parents is always present, but often we all are" (father Miguel), distance supervision ("I keep taking a look") or even technical mediation, pre-defining contents (mother Marta) (e.g. Livingstone & Helsper, 2008; Nikken & Jansz, 2014; Nikken & Schols, 2015).

All parents admitted a greater concern when their children growing up. For the time being, they believe they "control", revealing more worried about eventual sight problems or headaches (father António, V.P.A.), with sleep cycle disruption (mother Judite, V.P.A.) due to devices exposure time. Father Miguel (Lisbon) is afraid of social interaction issues and the environment his daughter may have, and Mother Marta (Lisbon) is worried that her son loses interest in other activities. These concerns have already been stated in Gottschalk (2019), Kardefelt-Winther (2017) and Twenge and Campbell (2018) studies.

Final remarks

Regardless of geography, the households included in this exploratory study (from children and parents) have internet connected technology and small digital screens are most appealing to all under five-year-old children. However, children from V.P.A. mentioned more exposure to these devices, especially tablets, than Lisbon groups. Likewise, some children from Trás-os-Montes referred digital games experiences and greater competences and independence to download these apps in their parents' smartphones. This raises a theoretical hypothesis of not just the urban *versus* rural variable generating this difference, but that it is associated to children from V.P.A. having more free time at home after school and to them being mostly single-children, therefore more focused on traditional play and/or individual screen consumption.

Most consumed contents are animation programmes in cable television children channels, as well as on *YouTube*, where they follow a fashionable youtuber (Lucas Neto). Children from Lisbon have however demonstrated a greater knowledge regarding the television channels they contact, which is coherent with them watching more television during the week comparing to digital screens. Many children from V.P.V. use the screens alone and are less aware of use and/or contents parental rules, conversely of Lisbon children, who generally refer watching television and digital screens with their parents or siblings and acknowledged clearer parental mediation conducts. All children in this study using portable digital screens declared they watched them essentially at home and

instrumentally (when they are getting ready, eating or before going to bed), though they may exceptionally also use them in the car, in restaurants or in long family lunches.

In semi-structured interviews to parents with small children (between months and four-years-old) a similar tendency was perceived: children prefer tablets or smartphones. Yet it is mostly children of V.P.A. parents who have facilitated access to digital media, often for personal use. Parents from both spaces said they felt under pressure to "sponsor" access, regardless of using time, because they are afraid that they might exclude their children from the digital generation they belong to. They all stated some concern, but they believe greater concerns will come as children grow up. Notwithstanding, interviewed parents from V.P.A. showed a less restrictive attitude towards access, using time and contents. In no group of parents active or co-use mediation practices were effectively found. Parents of months old children accompany them during digital screens use, but to ensure a proper use.

These trends may not, however, be generalized to the rural and urban context here contemplated due to the limited number of participants, both children and parents. Using larger samples from both contexts (city or rural) and a more diversified social representation would enable more extensive findings regarding the effects that urban/rural variables might have on under five-year-old children screen exposure and parental mediation strategies. The ethical required protocols and permissions involved in gaining access to such young children are though quite difficult and render the whole research process time-consuming.

Translation: Maria João Cunha

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"I'm sorry you don't flag it when you advertise": audience and commercial content on the *Sofia Barbosa* YouTube channel

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Abstract

The main theme of the article is the context of digital microcelebrity experienced by children and adolescents, particularly on social networking sites such as YouTube. The purpose of the study is to understand how young audiences of the popular Portuguese channel *Sofia Barbosa* on YouTube construct meaning about the commercial content and authenticity that the youtuber presents. The methodology used is qualitative bias and netnography is employed in analysing 1.961 comments made by subscribers on 10 videos posted between January and October 2018. As a means of better understanding the context of the comments we also analysed the visual, verbal and commercial aspects of the videos. The comments demonstrate a perception on the part of followers of closeness and intimacy in relation to Sofia and a strong acceptance of the commercial content promoted by the young woman. However, critical reflections about the marketing practices of the youtuber can at various times be perceived, namely on the lack of transparency in commercial relations; this presents itself as an opportunity to balance a romanticised view that many subscribers have of microcelebrities with a more rational understanding of the industry that sustains them.

Keywords

young people; microcelebrity, authenticity; commercialism; YouTube

"Tenho pena que não sinalizes quando fazes publicidade": audiência e conteúdo comercial no canal *Sofia Barbosa* no YouTube

Resumo

Este artigo trata do contexto da microcelebrização digital vivenciado por crianças e adolescentes, nomeadamente, em sites de redes sociais como o YouTube. O objetivo do trabalho está em perceber como as jovens audiências do popular canal português *Sofia Barbosa*, no YouTube, constroem sentidos sobre os conteúdos comerciais e a autenticidade que a *youtuber* apresenta. A metodologia utilizada tem cariz qualitativo e contou com a netnografia para a análise de 1.961 comentários feitos pelos subscritores em 10 vídeos publicados entre janeiro e outubro de 2018. Como forma de melhor compreender o contexto em que estavam inseridos os comentários, analisamos também os aspetos visuais, verbais e comerciais dos vídeos. Os comentários

demonstram uma perceção de proximidade e intimidade por parte dos seguidores em relação à Sofia e uma forte aceitação do conteúdo comercial promovido pela jovem. No entanto, percebe--se em vários momentos uma reflexividade crítica em relação às práticas mercadológicas da *youtuber*, nomeadamente no que diz respeito à falta de transparência nas relações comerciais, o que se apresenta como uma oportunidade para equilibrar uma visão romantizada que muitos subscritores têm das microcelebridades com uma compreensão mais racional sobre a indústria que os sustenta.

Palavras-chave
jovens; microcelebridade; autenticidade; comercialismo; YouTube

Introduction

In the context of contemporary infantile and juvenile cultures, the relations of children and adolescents with social networks have attracted the attention of the industry, the media, and academia. There are many positive aspects to this presence online of the younger generation, whether as audience or content producers: possibilities of education in interpreting media messages, of interaction and learning new skills, of self-expression and as a manifestation of the values and visibility of their own cultures (Jorge, Marôpo & Nunes, 2018).

However, the potential to create and amplify voices that initially characterised the internet gave way to a new business model on the part of major digital platforms that pairs digital influence with the management of metadada (Khamis, Ang & Welling, 2016; van Dijck, 2017). This datafication is characterised by the collection, storage and monitoring of data on human socialising and behaviours that is exploited by companies, digital platforms and governmental agencies. These data were long viewed as subproducts of the new technologies, with friendships, personal interests, conversations, expression of tastes and feelings becoming a valuable currency of exchange for the prediction of behaviour, the development of new products and the planning of marketing campaigns (van Dijck, 2017).

With this in mind, platforms such as YouTube and Instagram came to invest massively in the profissionalisation and commercialisation of the content produced by users, contributing to the popularity of the so-called digital influencers and the promotion of commercialism among its audiences, which have to a large extent been made up of children and adolescents (Jorge, Marôpo & Nunes, 2018; Khamis et al., 2016). It is in this context that microcelebrities emerge – ordinary people who win fame by sharing elements of their daily life online, at the same time using strategies of authenticity and self-branding to attract the attention of the public and the advertising industry (Banet-Weiser, 2011; Marwick, 2010).

By sharing routines, tastes and interests that are similar to those of their peers, child and adolescent microcelebrities more easily promote feelings of identification in their followers (Tomaz, 2017). Fans of traditional stars may harbour doubts about whether

they really are as they present themselves, while the audiences of microcelebrities feel that they truly know them and that they are familiar with details that only people close to them know. In this way, these "'small' digital influencers may have more loyal audiences, where recommendations might be more efficient" (Jorge, Marôpo & Nunes, 2018, p. 81).

Around 70% of adolescent spectators on YouTube say they relate more to digital influencers than to traditional celebrities, and four in every 10 young people who view videos on the platform state that YouTube stars understand them better than their own friends (O'Neil-Hart & Blumenstein, 2016).

Given these findings, one can see the importance of studies that seek clues to the ramifications that this celebrity culture on YouTube has for the formation of the subjectivities of children and adolescents and for their behaviours as social agents and consumers in the context of the attention economy (Crawford, 2015).

In Portugal, the culture of microcelebrity has made significant inroads into young audiences. In the fashion and beauty segment, Sofia Barbosa (aged 20 as of 2020) is a youtuber and Instagrammer widely recognised for her fame. Her eponymous channel was selected as the empirical object of this work due to its popularity in this niche on YouTube in the country (Chaves, 2017), especially among children and adolescents. The channel has around 270,000 subscribers, 558 videos and almost 39 million views (as of October 2019). Sofia Barbosa also has profiles on Instagram, Facebook and Twitter – all with hundreds of thousands of followers – and in September 2019 she premiered her own podcast, *Não sejas pussy* (Don't be a pussy). She has won the *Nickelodeon Kids' Choice Award prize* for "Favourite portuguese youtuber" (in 2017) and starred in national advertising campaigns, and regularly forms partnerships with leading international brands.

The aim of this article is to show how the audiences of the *Sofia Barbosa* channel construct meaning relating to commercial content and authenticity presented by the youtuber. The methodology used is of a qualitative nature and employs netnography (Fragoso, Recuero & Amaral, 2011) to analyse the comments of subscribers and the content shared by Sofia in 10 videos posted on the channel between January and October 2018. To define the corpus of the empirical research, the content of 50 videos on the channel was analysed (Igartua & Humanes, 2004), as well as the development of rankings of the most popular videos and those that prompted most interaction, according to metrics such as views, likes, dislikes and comments.

Microcelebrities and their young audiences: networked experiences

The 21st century has brought a complete reinvention of consumer culture and the way of relating and being in the world. The process of globalisation has connected people, while new creative and technological devices have altered the linearity of communication, given a voice to subjects, blurred the boundaries between content producer and consumer, transformed the business-client relationship and obliged the market to adapt rapidly (Castells, 2007; Lipovetsky & Seroy, 2010).

While acknowledging the multiple social and cultural divisions in westernised societies, it is clear that in general young people today are present online, interact on social networks and attract the attention of the industry, which keeps an ever closer eye on what is being produced and consumed in the online environment. The studies below, carried out in different contexts and countries, corroborate this statement.

The study *Uniquely gen Z* (NRF & IBM, 2017), involving 15.000 young people aged between 13 and 21, from 16 countries, found that 74% of participants said that they spend their free time on the internet. The study highlighted the consumption potential of this age group, worth $44 billion per year, and also presented characteristics of its members' consumption behaviour and the level of their interaction with companies in the online environment: 36% said that they had created digital content for a brand, 42% had taken part in online activities for a marketing campaign, 66% expressed a concern for the quality of what they buy and 45% expressed interest in eco-friendly and socially responsable brands.

The study *Teens, social media & technology 2018* (Anderson & Jiang, 2018), involving 743 adolescents aged between 13 and 17 in the United States, found that 45% of the participants said they were "almost always" online and 44% that they went online "several times a day". In relation to social networks, YouTube was the favourite of adolescents (85%), followed by Instagram (72%) and Snapchat (69%).

In the European field, a study carried out with 281 adolescents aged between 12 and 19 in Portugal, Italy and Spain (Pereira, Moura & Fillol, 2018) concluded that the Portuguese participants were those that most used social networks (4.78), followed by the Spanish (4.7) and Italians (4.45). In all three countries YouTube led the field, with 97% of participants saying that they had an account on the platform. WhatsApp was second, at 88%, followed by Instagram, with 73%.

In analysing all these data, the role of social networks in the experiences of children and adolescents online is evident. This prompts the reflection that, if they are indeed occupying these digital spaces, the industry is sure to find ways of also making its presence felt, with the most varied market strategies.

One strategy that has had one of the greatest impacts on children and young people is brand partnerships with digital microcelebrities, that is, those apparently ordinary but successful content producers who understand the importance of self-promotion, build an "online persona" and market it as if it were a brand (Senft, 2008). Microcelebrities talk of their social networks as specific audience niches and tend to do without corporate entertainment "intermediaries" such as the traditional agents of major celebrities (Marwick, 2010). Amid this apparently intimate discourse, which is presented as spontaneous, the microcelebrity displays products, blurring the lines between advertising discourse and authorial narrative. In this way they represent a positive solution to consumers blocking out traditional efforts at persuasion (Williamsom, 2016).

This self-promotion by means of strategies similar to those used by brands, sparking feelings of intimacy and affection in the audience, is called self-branding (Khamis et al., 2016; Marwick, 2010; Raun, 2018) and is intimately related to the logic of the

"attention economy" (Crawford, 2015). The driving force of this logic are metrics such as likes, comments and shares, which may indicate microcelebrities' high profile and capacity to influence. These influencers therefore know that, in order to attract the attention of the industry, they must keep their audiences loyal to work in their favour (Tomaz, 2017).

YouTube is the quintessential microcelebrities' social network, not least because it has dedicated significant resources to ensure that amateur videos and their producers give way to evey more professional content that is susceptible to being co-opted. The platform was founded in 2005 with the objective of facilitating the sharing of videos based on use-generated content, without the need for great technical knowledge (Jorge, Amaral & Mathieu, 2018). In 2006 Google bought YouTube and the platform rapidly climbed to the top of the ranking of the world's most visited sites (Burgess & Green, 2009). Since then the platform has turned its efforts to the professionalisation of content creators. The strategies used to achieve these objectives are numerous: 1) the complex system of algorithms that co-opt the data of users to be marketed to advertisers and to classify them according to their choices and tastes; 2) social functions, such as comments and likes, 3) the automatic listing of recomended videos; 4) the YouTube Partners Program (YPP); and 5) the logistical support given to content creators, with workshops, events and recording studios dotted all around the world and equipped for youtubers' audiovisual productions (Burgess & Green, 2009; Jorge, Amaral & Mathieu, 2018). These strategies of co-opting user-generated content have brought in $1 billion a year in revenue to the platform (Jorge, Marôpo & Nunes, 2018).

It is in this context that youtubers have become a bridge between brands and their audiences. In associating themselves with a microcelebrity who presents themselves in an apparently intimate and authentic way to their audience, the brand gains credibility and takes advantage of the influencer's reputation, built on the basis of self-branding. At the same time, the creation by the influencers of a hybrid atmosphere, in mixing personal narrative with commercial content, may be effective in ensuring that the audience does not understand whether what is being shared is a spontaneous recommendation or sponsored content. Where children and adolescents are involved, this type of strategy may go all the more unnoticed. Sampaio & Cavalcante (2016) comment that this audience identifies more easily with advertising appearing on broadcast media than on online media, precisely because online content and advertising are very often not clearly demarcated. In addition, peer culture exercises a strong influence on the formation of subjectivities in youngsters. Successful youtubers seem always to be chatting, talk about routine subjects in their domestic setting, express themselves in an affectionate or comical manner, reinforce the self esteem of their followers, and use standardised jargon and an informal narrative form (Marôpo, Sampaio & Pereira, 2018). They also talk about matters relating to popular culture (music, films, best-sellers, fast food) and of young people's ways of being. That is, they build relationships in order to be perceived as authentic that then impact on the new ways of socialisation and consumption of digitally connected children and adolescents.

Methodological choices

This article has its origin in research carried out as part of a dissertation for a Master's degree in Communication Sciences at the University of the Minho (Carvalho, 2019). It analyses how audiences of the channel *Sofia Barbosa* construct meanings about the commercial content and authenticity that the youtuber presents. The channel was chosen due to its popularity among adolescents in Portugal using YouTube, especially in the fashion and beauty niche. At the age of 12, Sofia is said to have been a timid girl who set up her channel as a hobby, inspired by international beauty youtubers (TEDx Talks, 2018). Today, at 19, this young woman presides over a channel with more than 270.000 subscribers and almost 39 million views. Her decision not to go to university and to move with her sister from Porto to the capital, Lisbon, in order to invest in her career, as well as the technical quality of the videos, the investment made in equipment and, above all, the fact that Sofia treats her channel as a full-time enterprise, are among the aspects that attest to its professonal nature. Sofia Barbosa's videos usually offer a mixture of day-to-day frivolity and the glamour that the world of microcelebrity makes possible: Sofia cleans her house, is invited to product launches, photographs looks for well-known clothing brands, orders a pizza delivery on Sundays and goes on ski trips at the invitation of a sponsor.

This study was carried out based on qualititative methodology backed up by netnographic analysis (Fragoso et al. 2011), with a view to ensuring a systematic analysis of the comments of subscribers and of consumption practices and sociabilities protagonised by Sofia in 10 videos posted on her channel.

For the selection of the corpus, a content analysis (Igartua & Humanes, 2004) was carried out and a classification made of all videos shared by the youtuber in the period from January through October 2018. In all, 50 videos were classified in three different spheres, in line with the model outlined by Florencia García-Rapp (2017): 1) the community sphere – self-branding videos, with the influencer talking about herself, intimate subjects to do with her life, in a personal tone, as if she were chatting with a friend; 2) the commercial sphere – the vlogger displays her latest purchases or "recebidos" (items received), tries out products, tells viewers how to use them and presents brands; 3) the hybrid sphere – used in this study to categorise those videos that mix style and content from the first two spheres and which are often sponsored videos. This classification process identified 21 videos belonging to the community sphere, 12 relating to the commercial sphere and 17 in the hybrid sphere.

For the detailed analysis of the comments, a sample of 10 videos was selected, based on two criteria. The first concerns a balance between the three spheres. The second criterion takes into consideration the metrics of the popularity of and interaction with the videos (likes, dislikes, comments and views), which are the concrete feedback that followers most value (Tomaz, 2017). These selection criteria guaranteed the numerical representativeness of the comments analysed – of which there was a total of 1,961 – at the same time as making possible a diversity of samples as outlined in Table 1, below.

Title	Sphere	Synopsis
"Vlog: primeiros passos para a minha mudança" (Vlog: first steps for my move)	Community	The most watched video of 2018. Mixes scenes at home with images from outside it, including a train trip from Porto to Lisbon and visits to properties to rent in the capital. Moving home is the central theme, but part of the video is dedicated to showcasing beauty products.
"Tag: 13 perguntas pessoais" (Tag: 13 personal questions)	Community	This video appears in three rankings: most views, most comments and most likes. In conversational style, Sofia directly addresses the camera and answers questions such as "two things that irritate you?", "what do you usually order in Starbucks?" and "a guilty pleasure?".
"Nova casa em Lisboa!" (New home in Lisbon!)	Hybrid	Video sponsored by a cosmetics brand. The title suggests that Sofia will show off her new home, but the focus remains on the sponsor's products – the same as those presented in "Vlog: primeiros passos para a minha mudança". This is one of the videos that received most dislikes.
"A minha rotina matinal para os fins de semana" (My morning routine for weekends)	Hybrid	Video sponsored by another cosmetics brand. Sofia takes viewers through her morning and beauty routine. The scenes show her waking up, having breakfast and making herself up. A different style of editing can be noted, in which the youtuber does not address the camera and the narrative is in voiceover, alternating with a soundtrack.
"Lookbook swimwear 2018" (Lookbook: Swimwear lookbook 2018)	Commercial	In a format similar to a video advert, Sofia is on the beach "modelling" various bikinis from the brand sponsor. There is no speech or narration, just a music soundtrack. In the description box there is information about the bikinis and links to buy them on the brand's website.
"Chegou ao fim!" (It's over!)	Community	This video, the second-most watched of 2018, has a confessional style with a high degree of subjectivity, with Sofia sharing her anxieties as her time at school comes to an end. Images of Sofia's bedroom are interspersed with images of the youtuber together with friends at their prom.
"Maquilha e fala: não vou para a faculdade e a minha alimentação" (Making up and talking: I'm not going to university and what I eat)	Hybrid	A video that mixes style and content from the community and commercial spheres. While making herself up, Sofia talks about some subjects raised by her followers. She talks about social pressure to go straight to university, even as she mentions the brand of blusher that she is using.
"Weekly vlog: sou uma tia babada!" (Weekly vlog: I am a doting 'aunt')	Community	The youtuber shares her weekly routine. She chats in the living room of her new home, prepares an omelette and irons clothes; this is interspersed with images from a photo shoot, a visit to see the baby of a friend, also a youtuber, and a walk on the beach.
"O tempo passa rápido" (Time goes quickly)	Hybrid	Video to mark six years of the channel. Style similar to a video advert, with voiceover and images of Sofia walking through Lisbon, always holding a notebook from the brand sponsor, as she recalls milestone moments for her channel.
"Haul back to school 2018" (Back to school haul 2018)	Commercial	The video that received most dislikes of the year shows the youtuber sitting on the floor of her bedroom displaying and trying on various items of clothing that she has been given or bought. Some items are from the video's brand sponsor.

Table 1: Videos selected to make up the research corpus

We observed the comments on 10 videos, considering: 1) themes raised; 2) interaction of followers with the YouTuber and with other followers with respect to commercial content; 3) requests for information about products and brands; 4) perceptions about the YouTuber's authenticity in relation to commercial content; and 5) approval or criticism of commercial content. In all 1.961 comments and replies to comments were considered, recovered by means of the YouTube Comment Scraper[1] and organised in a spreadsheet. As a way of better understanding the context in which the comments were posted, we also analysed the videos, taking into account the following aspects: 1) visual, such as scenario, editing, setting, people who appear, activities undertaken; 2) verbal, with intimate discourse, questions to the audience, tête-à-tête conversation, attention to authenticity and to what the audience has shown it values; and 3) commercial, such as the display of products, brands and transparency about sponsorship.

WHAT DO AUDIENCES THINK ABOUT THE HYBRIDISM THAT SEEKS TO RECONCILE AUTHENTICITY AND COMMERCIALISM?

Sofia uses a narrative permeated by light humour, touching on subjects of a personal and emotional nature. Her intimate rhetoric serves an essential function in her presentation and is effective in (Carvalho, 2019, p. 98):

- identifying family and friends: "at this moment I am alone at home; my sister went with my parents to Lisbon and my brother is working at this moment"[2] ("Primeiros passos para a minha mudança de casa!");

- speaking about her home: "a lot of people commented on my last weekly vlog that the light in my house is very pretty. As you can see, that is true. (...) thanks to everyone who noticed that" ("Weekly vlog: sou uma tia babada");

- showing her habits: "as soon as I wake up I go straight into the kitchen to have breakfast, and anyone who's already seen my vlogs already knows what it is. It's yoghurt, oats and banana" ("A minha rotina matinal para os fins de semana");

- reinforcing the idea that the audience knows her: "I sincerely think that you know almost everything about me" ("Tag: 13 perguntas pessoais");

- justifying a possible failing: "today is Sunday and first off I want to say sorry because yesterday I didn't record a vlog. And I'm sure that on Friday the day wasn't that full" ("Weekly vlog: sou uma tia babada!").

In consuming this content, her followers often express pleasure at similarities between their tastes and those displayed by Sofia:

> CHOCOLATE VANILLA AND CARAMEL! My friend, I have never shouted
> SAME so loud in my life! I love you more and more. AHHH WE COULD BE
> GOOD FRIENDS. (C.F. – "Tag: 13 perguntas pessoais")[3]

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[1] See http://ytcomments.klostermann.ca

[2] All Sofia words and comments from the videos have been transcribed just as they appear, so they may contain errors of puncutation or incorrect editing of one or another word or phrase, as well graphic symbols. Emojis were removed.

[3] Many YouTube users use nicknames rather than their real names. All comments by users posted on videos analysed in this study are identified by the initials of the names or nicknames, followed by the title of the video about which the comment is made.

> I feel so proud of you I've been watching you since I was 11 and now I am 14 and I feel you deserve everything you have, I wish I could get to know you one day. (I.C. – "Primeiros passos para a minha mudança de casa")

> Sofia you are just like me I love bolognese sauce :3. (K. G. – "Tag: 13 perguntas pessoais")

> I think I appreciate your videos more and more Sofia. Edit: when I am your age I want a home like that :). (C.F. – "Weekly vlog: sou uma tia babada")

The feeling of proximity to the YouTuber is such that there are followers who express a feeling of gratitude towards and an almost blind confidence in Sofia:

> I haven't seen the video yet but I have already clicked like and said that you are the best person in the world and thank you for giving me the most support psychologically, i love you (F. F. – "A minha rotina matinal para os fins de semana")

The youtuber's narrative intimacy is successful when "Sofia as friend" prevails over "Sofia as microcelebrity" and her work on YouTube is seen as disinterested or the "unquestionable result of an unshakeable faith in the realisation of a dream or an individual endeavour" (Tomaz, 2017, p. 162), as can be perceived in this comment:

> this video is so inspiring!! To see everything that you have achieved with your work and dedication and with you not even expecting anything in return. I look forward to many more years of your videos big kiss Sofia. (S.M. – "O tempo passa rápido")

There are subscribers who, absorbed by feelings of affection and intimacy, do not clearly perceive the market-oriented slant present in the channel. In addition, the fact that audiences do not appear to have much knowledge of how the chain of production of celebrity works (system of algorithms, partnership programme, advertising contracts, influencer marketing agencies, investment in equipment and technology, among other factors) helps to construct the idea of fame as an involuntary result of the talent or effort of young microcelebrities such as Sofia (Tomaz, 2017).

As important as initimate rhetoric for an effective self-branding strategy is the conveying of authenticity. The youtuber reinforces the idea that it is important "to be yourself", in sharing tastes (popular series, music festivals, brand launches, travel tips), in affirming what she defines as her own style, and in her performed spontaneity (recording "errors" or unexpected scenes are kept on in the edited videos). She thus does not stop recording in order to open the door for a pizza delivery, adjust the framing, look for her glasses in her bag or handling her phone. In one scene she appears seated in the living room of her home, addressing the camera, when she suddenly looks away to warn her sister that she has spilt milk onto a book and that she needs to clean it up straight away (Carvalho, 2019).

The audience gives signs of perceiving Sofia as authentic and tends to make mostly positive or encouraging comments, using words such as "original", "real", "different" and "sincere" (Carvalho, 2019):

> ... I loved the editing and the way that, more and more, you let yourself really shine through to this side :) keep it up. (B.C. – "Weekly vlog: sou uma tia babada!")

> Many congratulations for the video I loved it and especially I know you were very sincere... (I. C. – "O tempo passa rápido")

> I would like to see more videos on fashion and beauty, your tips always give a little help for daily life. Your videos are fantastic and original, I am always surprised and that is what makes you *amazing*!!! (F. S. – "Weekly vlog: sou uma tia babada!")

> Congratulations Sofia, you are an example and an inspiration I am 12 and I also want to create a channel on YouTube A big kiss, and keep going, I wish you all the best. (C.R. – "O tempo passa rápido")

The praise and words of encouragement extend to her recommendations of products and brands:

> Hi sofia, (...) I miss your favourites they always helped me a lot in discovering new products clothes or films!! Kisses I love you <3. (D. – "Weekly vlog: sou uma tia babada!")

The video "Nova casa em Lisboa" is in vlog[4] format and in it the youtuber intersperses scenes shot inside her home, in which she addresses the camera directly, with scenes outdoors in the city of Lisbon. She starts by talking about her house move and then focusses on the subject of skincare, saying that she has received many requests for her to share her skincare routine. This is the cue for her to introduce the paid publicity for a well-known French brand of cosmetics. This 11-minute video, which the title suggests should focus on her new home in Lisbon, devotes about four minutes to the youtuber presenting the products of the brand sponsor. This apparent attempt to camouflage the market-oriented slant by means of the title was understood as such by one follower (Carvalho, 2019):

> Sofia I was expecting a video showing your new home. I don't know why you chose this rather misleading title. (C.S. – "Nova casa em Lisboa")

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[4] Videos that show the personal routine of a microcelebrity, in the form of a personal diary shared in front of the camera (Marôpo et al., 2018). Sofia tends most often to do what she calls "weekly vlogs", in which she recounts the events of a whole week.

In the description box there was a note of thanks to the brand sponsor, but once more an attempt to play down the advertising can be seen in analysing this comment:

> I love your videos, I'm just sorry that you don't flag it when you advertise something, either in the video or in the description box it is extremely important to flag advertising, even if only in the description box with a *this video is sponsored, because it clearly is sponsored by garnier. (C. – "Nova casa em Lisboa")

In other words, it is probable that the note of thanks put up by Sofia was inserted later, after the video was uploaded. Besides this comment demanding transparency, we identified other expressions of criticism about advertising content present on the channel. One comment that attracted 18 likes from other followers highlights the fact that in recent months Sofia's videos "aren't the same any more" and that many people feel that the YouTuber seems to be recording them out of obligation, because she is receiving things from brands. The author of the comment gives an example by citing that same video, in which Sofia spent half the time talking about a product and presented practically no other content.

It can thus be seen that, whether it is a matter of "camouflage", because of the failure to mention the sponsorship, or of the casual insertion of products in the middle of day-to-day scenes, there is a clear effort to lay stress on an apparently authentic performance of Sofia's daily life, in detriment to greater transparency about the sponsored content.

These strategies of hybridisation between content from the commercial and community spheres are once more questioned by subscribers in the video "A minha rotina matinal para os fins de semana", which is sponsored by another well-known brand of cosmetics. This is one of the videos that received most dislikes and negative comments. The production is similar to that of an advertising video with a pre-prepared script that tells a story: what Sofia does on a weekend morning. The video begins with Sofia waking up in her bed and ends with the youtuber walking in the park. In its course, Sofia uses numerous skincare and makeup products, all from the brand sponsor. Once more the failure to flag sponsored content was perceived by followers, and once more this prompts the conclusion that the mention of advertising present in the description box was added after the video was uploaded and probably after these expressions of disapproval were made.

Criticisms were also made about Sofia ethics in using products from companies that permit testing on animals. One follower comments:

> Sofia, I say again, if you want to use more ethical makeup, that is, cruelty free it isn't a good idea for you to use and support Clinique. They test on animals. (S. – "A minha rotina matinal para os fins de semana")

However, it is the idea that commercial content compromises the appearance of authenticity fostered by Sofia that prompted the criticism with the greatest repercussion in the audience. This comment received 93 likes:

> Routine with just one brand is not a real routine. It doesn't do any harm, but it's too obvious that it's not a realistic and sincere video. (C. – "A minha rotina matinal para os fins de semana")

This other comment also takes the same line:

> The video is very good, but in my opinion it doesn't correspond to reality. To start with the video is sponsored by makeup brands and no one uses 10 different bits of makeup before going out EVERY day ... (U. – "A minha rotina matinal para os fins de semana")

There was also an appeal to Sofia not to let her authenticity be influenced by sponsors:

> ...please don't stop being "you" and don't stop giving your sincere opinion about products and brands, just because of the sponsorship, because I at least have always followed you because you are super honest and modest, and it would be a shame if now you started stopping being like that towards your subs... Kiss. (M. M. – "A minha rotina matinal para os fins de semana")

Discussion and conclusion

The analysis in this study of comments made by followers of the channel *Sofia Barbosa* has contributed to a better understanding of contemporary infantile and juvenile sociabilities in the ambit of consumer culture as fostered in the digital environment.

The audience reciprocates Sofia's strategies of intimacy and authenticity with frequent expressions of affection. The praise, positive feedback, attempts to find affinities with the YouTuber and the expression of the desire that Sofia become a real friend, off screen, are examples of this. In this relation of apparent proximity can also be perceived a strong acceptance of the commercial content fostered by her.

Nevertheless, it is possible to find the occasional example that indicates that the appeals to consumption present on the channel are not assimilated without any kind of critical spirit. At various moments, there is a reflectiveness in relation to the commercial practices protagonised by Sofia, namely when they are dissimulated.

The lack of transparency about sponsorship, when perceived, was not well received by a small portion of subscribers. Other strategies to hide the presence of commercial content, such as in the case of the title seen as "misleading", were also received critically by the audience. Some followers pointed to ways of resolving the question with requests that Sofia always identify sponsored content. There were also expressions of criticism, albeit rarely, in relation the brands themselves, as in the case of the follower who queried Sofia's use of brands that allow testing on animals, taking a political position in defence of that cause.

This more sceptical stance on the part of some followers may be interpreted as reacting to an uncomfortable notion that they are suddenly being catapulted from the

status of "friends who know everything about Sofia" to the position of mere consumers. It is possible to perceive in the comments a feeling of weakening loyalty in view of the artificiality of certain content and the attempt on the part of the YouTuber to monetise her position based on commercial relations with certain brands and products that are presented as genuinely personal preferences.

These expressions of disenchantment with the YouTuber may contribute to balancing a romanticised vision that many subscribers have of microcelebrities with a more rational comprehension of the industry that sustains them. In this sense, the commercial content was at some points just a vehicle to promote brands and products, but was then transformed into a space for followers also to be able to position themselves critically in their comments.

In these moments, the young audience shows that it has some literacy that helps it to develop the skills to analyse and discern content to be found on the channel, including the market-oriented content (Pereira, Pinto & Moura, 2015). Nevertheless, in general, the comments demonstrate that children and adolescents know little (or care little) about the commercial processes interwoven in the world of digital microcelebrities.

The presence of children and adolescents on the internet and on social networks can and should also be interpreted with a positive eye, revealing new possibilities for their construction as social actors with an impact on the context around them by means of interaction, learning and the expression of their cultures and identities. However, much work is still needed in terms of digital literacy for children and adolescents who use social networks in order for them to perceive more consciously how the industry has taken advantage of the visibility and credibility of microcelebrities such as Sofia. This is true not only of brands but also of major internet players such as Google and YouTube, whose business model is based on co-opting content and audiences. There is a need for more new studies in this area, with digital media offering a broad field of study and children and adolescents serving as fundamental agents in these investigations.

Tradução: Alison Roberts

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Youth, science, and media: perceptions of Astronomy and Space Sciences in formal and informal contexts

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Abstract

The importance of the media, both in the acquisition of knowledge, and in the formation of opinions and representations of science subjects, has been widely acknowledged in research. However, there is still an insufficient number of studies which focus on how young audiences specifically access, understand and create science-related content via different platforms, thereby mobilising different literacies. The present empirical study seeks to explore some bridges in this regard. By looking at a young public interested in science, namely Astronomy and Space Sciences, we intend to ascertain what they value and how they appropriate scientific information in their social relations in order to build critical scientific literacy for decision-making and the formation of opinions about science. The main results of this study confirm that informal learning plays an important role not only in the development of identification with science by young people, but also in the search for related academic and professional pathways. Although it confirms that younger people do not seek science news, the current study suggests that they do engage in seeking science-specific information according to their interests. The absence of a reflection on how science discourses and news are produced and filtered by the media and other science communication agents underlines the relevance of promoting critical science literacy, which seems to imply a link to other literacies, media literacy included.

Keywords

young people; science; media; scientific literacy; identity

Jovens, ciência e *media*: perceções sobre a Astronomia e Ciências do Espaço em contextos formais e informais

Resumo

O papel transversal dos *media* na aquisição de conhecimentos e na formação de opiniões e representações de assuntos de ciência tem uma importância reconhecida. Porém, existem poucos estudos que se debrucem sobre o modo como os jovens acedem, compreendem e criam conteúdos relacionados com a ciência, utilizando diversas plataformas e acionando diferentes literacias. O presente estudo procura explorar algumas pontes nesse sentido. Tendo como base públicos jovens interessados em ciência, nomeadamente em Astronomia e Ciências do Espaço, o estudo pretende averiguar o que estes valorizam na ciência e como se apropriam da informação científica para a tomada de decisão e a formação de opiniões sobre ciência. Os resultados confirmam que as aprendizagens informais têm um papel relevante no desenvolvimento de

uma identificação com a ciência e na escolha por percursos académicos e profissionais com ela relacionados. Apesar de não procurarem notícias de ciência em geral, pesquisam informação específica de ciência de acordo com os seus interesses. A ausência de uma reflexão sobre como os discursos e as notícias de ciência são produzidos e filtrados pelos *media* e outros agentes de comunicação de ciência faz ressaltar a relevância da promoção de uma literacia crítica de ciência, que implica a ligação a outras literacias, incluindo a literacia mediática.

Palavras-chave
jovens; ciência; *media*; literacia científica; identidade

Introduction

Notwithstanding the fact that the media play an important role shaping young people´s identity (Buckingham, 2008; Davies & Horst, 2016; Dover, 2007; Nelms, Allen, Craig & Riggs, 2017), their influence in building a critical science literacy and in the forming aspects of identity that are related to (subjects of) science has been insufficiently explored hitherto. Little is known about young people´s habits of consumption of scientific information, namely in science communication activities in informal contexts (in science centres and in the media, for example), as well as the influence this consumption may have on the development of a scientific literacy.

Several studies suggest that school education levels and the media played a role in the relationship audiences build with science, such as in the participation of science related matters throughout life (Besley & Nisbet, 2013; Brossard & Scheufele, 2013; Peters et al., 2008; Suerdem, Bauer, Howard & Ruby, 2013). In view of the constant presence of science in the media, either explicitly or indirectly, in addition to the importance of decision-making based on scientific research, the ability to critically analyse scientific information conveyed by the media is considered as a relevant indicator of scientific literacy by many academics (DeBoer, 2000; Jarman & McClune, 2010; Korpan, Bisanz, Bisanz & Henderson, 1997; Norris, Phillips & Korpan, 2003). However, studies aimed at measuring the scientific literacy of young people (e.g. Norris et al., 2003) have as primary focus the understanding of facts and scientific knowledge in the news, and not so much the ways in which their constructs and actors are represented in different media, thus influencing the perceptions of science and scientists that are being built.

In spite of the existing evidence that the media influence young people´**s** cultural identity creation (Rahim & Pawanteh, 2009; Tőrők-Ágoston, 2017), the implications brought along for shaping opinions and making decisions related to science, such as the aspiration and option for a scientific career, remain to be analysed. Several reports (e.g. Cardoso, Mendonça, Paisana & Lima, 2016) have attested that the youngest not only use multiple devices to access information (mobile phones, tablets and computers, in addition to television), but also favour social networks to access entertainment and search for and share information content. Part of this information may be about science,

bearing a significant weight in the interception between the formal and informal learning of the youngest (Halkia & Mantzouridis, 2005).

The role of the media, and of digital media in particular, concerning the knowledge and skills that the youngsters develop (Pereira, Fillol & Moura, 2019), including those related to science and scientists should not continue to be disregarded (Tang, 2013; Tang & Moje, 2010). If in knowledge societies the learning of scientific facts occurs through spontaneous exposure in different contexts (Falk, Storksdieck & Dierking, 2007), and especially for young people this learning is permeated by a strong presence of the media in their daily lives, it makes sense to look for the connections between the contribution of the media to the construction of their scientific literacy. For this reason, the interrelations between the diverse literacies built by young people, including media literacy and scientific literacy, deserve a continuous critical analysis from social scientists, bringing together communication and science-technology-society studies (Boczkowski, 2007).

This study aims to building bridges in this regard, setting as a reference young people interested in science, namely Astronomy and Space Sciences. The present research seeks to investigate the following issues: what these young people value in science, how they appropriate the scientific information they access by different means and what uses they make of it in their social relations. In this sense, the ensuing questions are addressed:

1. What platforms and media do younger audiences favour to access science-related content?

2. How do young people act with respect to sharing and dialoguing about science issues with family, friends and, eventually, at school and in the media?

3. What representations and aspirations do these audiences show regarding Space Sciences and scientists?

The article will begin by establishing theoretical considerations about the representations of science in the media, as well as about its role in forming the identity of young people, hence articulating with the construction of scientific literacy in formal and informal contexts. Upon this contextualisation and analysis of the data collected, we will provide concluding reflections on the need to give voice to the younger audiences, thus developing their training, agency and involvement in the creation of formal and informal places for the promotion of dialogue and participation between science and society, through the use of different literacies.

Youth, science and the media: culture, identity and critical science literacy

We cannot ignore the importance of the media in social, economic and cultural life in contemporary societies. The mediated speeches and the technological artefacts that assist them are present in the daily life of the so-called knowledge societies in such an indelible way that sometimes they become diluted in other contexts of interaction, making it difficult to isolate their effects in relevant aspects of people's lives. It is not easy to deny that these means, tools and digital networks lead to different forms of learning and

skills acquisition (Buckingham, 2008; Pereira et al., 2019). For Buckingham (2008), it is learning that is reflected in expressions of identity and in the ability of individuals to form opinions in an independent and creative way.

These social and cultural expressions of identity are of particular importance for young people, as they assume positions and decisions that can influence future choices in terms of professional options, relationships and ways of life. The symbolic resources that they find and use to build, express, or decipher their own identities, or those of others, involve using the media (Mendick & Moreau, 2013). Due to the fact that in the media content is not neutral, media literacy must go beyond functional learning, so as to take into account the ability to critically evaluate information, seeking to understand symbolic representations, their social effects, the intentions of those who produce media content, among other aspects (Boczkowski, 2007; Buckingham, 2008).

In turn, the construction of scientific literacy implies calling out different contexts of learning and different ways of thinking and acting regarding science, viewing it critically (Carvalho, 2004; Priest, 2013). The perspective we have conceived for a critical science literacy comprises the capacities to understand motivations, values, symbols and power relations underlying scientific discourse (in its multiple modes – verbal, imagery and others), the contexts of production and the social functioning of science, besides its social, economic and political implications (Gregory & Cahill, 2009; Jarman & McClune, 2010).

Both mass and digital media are a primary source of information related to scientific issues (Brossard & Scheufele, 2013; Bubela et al., 2009; Gerhards & Schäfer, 2009). As science has evolved in its processes and practices, it has become more open and dependent on global and interdisciplinary collaborations and private funding. Furthermore, it started to adopt communication practices in line with those of other organisations and companies, using marketing and public relations, as well as media practices and logics (Bauer, 2008; Bucchi & Trench, 2014; Entradas, 2015). Scientific matters were multiplied in this virtual environment, leaving no doubt about the role of the media in the construction of science-related narratives, reflecting public concerns and affecting their perceptions (Feinstein, 2015). Through the widespread use of the media we are expected to think of them as more than "channels of scientific information" (Bucchi & Trench, 2014, p. 9). To achieve a conception of science literacy in an environment where the distinction between "entertainment, promotion, information, news and advertising" is not always clear (Priest, 2013, p. 140), the cognitive acquisition of scientific information is not enough; a critical perspective is needed to assess the contexts in which science discourses are created.

Thus, scientific literacy is related to the skills and knowledge that the individual must be able to build throughout his/her life (Falk, Storksdieck & Dierking, 2007), and which comprehend the reflection on the actions and intentions of several intervening agents, recognising that all information undergoes "filtering" (Hofstein, Eilks & Bybee, 2011, p. 1466). While Feinstein (2011) questions the role of the school in preparing its students for debates related to science topics, in the media as well as in other contexts of daily life, the ability to critically analyse scientific information conveyed by the media

is highlighted by other academics as an important goal in formal education (Jarman & McClune, 2010). The logics of mediation and "filtering" must be identified in the way science is communicated, acknowledging the public as an active social user and rebuilder of meanings related to science (Cope & Kalantzis, 2009).

Bearing in mind the fact that media literacy is expressed in the ability to access, understand and create communications in different contexts (Buckingham, Banaji, Carr, Cranmer & Willett, 2005), it is essential both to understand how it can be taken into account when the context is related to science subjects, and which role is played by the media in the development of scientific literacy and in the promotion of a science-related cultural identity. From a critical literacy perspective (Gainer, 2010; Kellner & Share, 2007), students are firstly encouraged to provide an analysis of the relationship between the media, audiences, information and power, and subsequently produce alternatives to the dominant discourse which tends to perpetuate inequalities (gender, racial and other).

The aforementioned aspects warrant special mention in science subjects since women, less privileged social classes, and some minority ethnic groups are underrepresented in science and technology careers, especially in the physical sciences and engineering (DeWitt et al., 2013). The traditional link between science, power and the male role constitutes an obstacle for some disadvantaged groups (DeWitt & Bultitude, 2018; Lane, Goh & Driver-Linn, 2012; Miller, Eagly & Linn, 2015). Media literacy may play an important role here, not only due its potential to enable the critical evaluation of science images perpetuated in the media, but also because it enables the construction of science narratives that take into account contexts and constraints in which it is made, by deconstructing discourses of power and enabling a critical look at the multiple dimensions of knowledge construction.

THE CONTEXT: AN INFORMAL SCIENCE COMMUNICATION ACTIVITY

Universidade Júnior (UJ) (Junior University)[1] served as a context to listen to young students of non-higher education. The data were collected during the "Summer in project" program "Astronomy: from concepts to practice"[2], offered by the Astrophysics Centre of the University of Porto (CAUP) and the Planetarium of Porto in July 2019.

The "Summer in project" initiative has a nationwide scope and is promoted by the University of Porto within the scope of the Junior University, and is extensively sought as a holiday occupation for children and young people from the 5th year to the 11th year of schooling. Implemented since 2005, the initiative has a very high demand, with around 6.000 vacancies in the 2019 edition. It includes activities promoted by different organisational units of the institution, from colleges to research centres, which adapt their offer to the public according to age and program´s purpose. Children and young people have the opportunity to get to know different spaces at the University and participate in

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[1] For more information about the initiative, visit https://universidadejunior.up.pt/programas.php?p=verao-em-projeto-9-10-e-11

[2] Retrieved from https://universidadejunior.up.pt/atividades.php?a=astronomia-dos-conceitos-a-pratica

various projects and activities, from laboratory practices, field work, field visits, group work, among others. Participants select the program or programs that best suit their interests among the diverse list made available by the project. In 2019, as in other years, a specific activity related to Astronomy was offered to young people from the 9th to the 11th grade.

Astronomy: from concepts to practice

The activity which was promoted by CAUP – "Astronomy: from concepts to practice" – was held over two weeks in July (8-12 July and 15-19 July 2019) and involved two groups of 20 participants each. Its main objective consisted in ensuring "that the participants get to know a little more about the Universe that surrounds us"[3]. Each week, young people were able to participate in classes which offered varied contents (stars, galaxies, cosmology, exoplanets, telescopes, how to make a presentation), practical labs (on meteorites, exoplanets, printing), planetarium sessions, and lastly, a conversation session with researchers. Table 1 below characterises each group of participants.

		Week 1	Week 2
Gender	Female	13	9
	Male	7	11
Attended school year 2018/2019	9th	6	11
	10th	11	7
	11th	3	2

Table 1: Participants' profile

From the sample provided, it was possible to characterise the participants regarding: 1) motivations associated with the frequency of an action of this kind; 2) platforms and means they used to access Astronomy information and knowledge; 3) attitudes and behaviours regarding interaction and dialogue about Astronomy issues with family, friends and, eventually, at school and in the media. Our search focused on aspects that are associated with critical science literacy and its relationship with other literacies.

Methodology

An appropriate choice for this study consisted in the combination of methodologies sustained in a critical and emancipatory investigation paradigm. Different methodologies for collecting and processing data (quantitative and qualitative) were used since they are complementary, nonetheless, each is constituted by specific strengths and limitations.

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[3] Retrieved from https://universidadejunior.up.pt/atividades.php?a=astronomia-dos-conceitos-a-pratica

Hence, information was collected using mixed methodologies, namely: surveys by online questionnaire, group discussions, focus groups, and participant observation using a field diary. The data collected via audio records complies with ethical standards and the General Data Protection Regulation (GDPR)[4].

The sample of young respondents we interviewed within the scope of the "Summer in project" activity is not be representative of young people "in general". Bearing in mind the fact that there are recognised inequalities concerning access to science, participants in this activity most likely come from more favoured socio-economic contexts and their views on science are influenced by this context. However, the manifest interest in science and the frequency with which they participate in an informal activity related to it makes them a group of particular relevance to the objectives of this exploratory study.

Description

The exploratory study allowed for the possibility of listening to young people aged between 14 and 18 years old regarding their relationship with science in informal spaces. In Portugal, it is around the age of 14 and 15 that students have to make choices about their future path in secondary education, deciding whether to enrol in scientific-humanistic courses, specialised artistic courses or professional courses. At this stage, students' preferences, attitudes, and opinions regarding science are expected to be established at a sufficient level to enable them to make this decision. Therefore, the young people who attended this program expressed an interest in Physics, Astronomy and Space Sciences, and considered pursuing any of these areas as an academic and professional path in the future.

Data was collected from the two groups of 20 participants in order to better understand the relationship that the participants in this activity develop with science, as well as the contribution of the media in this relationship.

At first, the information was collected using a field diary which focused on the activity designated "Conversation with researchers". This occurred after informed consent was given and confirmed. Afterwards, each week all participants answered a survey questionnaire, with simultaneous group discussion. For this purpose, computer software Wooclap[5] was used, which highlights and displays on a large screen the relative frequencies of the answers given to each question. In this way, qualitative data were also produced and collected, as these responses complemented by the simultaneous group discussion allowed for the assessment of the reasons presented for the options taken and enabled the clarification of questions not provided in a closed questionnaire. Thus, our main aim was to understand the ideas, attitudes, opinions, and experiences of young people who relate to science and to the activity they attended that week.

Furthermore, six focus groups (three each week) were held comprising six to eight participants. Each group had to answer questions related to the objectives shown in

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[4] Information to parents was added to the other authorizations required by UJ.

[5] Information available at https://www.wooclap.com/

Table 2[6] and adapted to the participants' interventions. Discussions lasted between 35 to 55 minutes and were recorded on audio.

1.	Identify the main representations and the most common meanings associated with astronomy and astronomers, as well as the main sources of these representations (family, media, school, peers, or others)
2.	Identify attitudes, beliefs and values towards science in general, and astronomy and space exploration
3.	Identify conceptions about professions associated with astronomy and space exploration
4.	Identify professional aspirations
5.	Identify sources of information (consumption of science information) in the media
6.	Identify perspectives on dialogue and public participation in matters of science in general, and astronomy in particular

Table 2: Specific objectives for data collection through the questionnaire and focus groups

After the transcription and familiarisation with the data provided was accomplished through multiple readings, we proceeded to the analysis of the information gathered, looking for themes based on a constructivist paradigm of interpretation of meanings. In the thematic analysis, we took into account study objectives, the topics present in the participants' speeches and the addressed subjects in the discussion groups. Next, we present the analysis undertaken concerning motivations, professional aspirations, professional representations and media consumption in relation to science subjects.

Data analysis

Upon review of the contributions of young participants, carried out by various means regarding the way they perceive their motivations, attitudes and behaviours in relation to Astronomy, below we present some considerations that involve setting up bridges with the media and the school.

Media consumption and information sharing

Sources of information on science: questionnaires revealed that participants rarely seek and/or access information on science in conventional media and most of them never or hardly ever share or comment on that information. When accessing information on science, two thirds of the participants favour a search engine and a visit to institutional sites of reference in the area – those from the National Aeronautics and Space Administration (NASA) and the European Space Agency (ESA) were mostly cited. All participants mentioned their use of social networks and some of them follow YouTube channels or institutional channels that regularly publish information and content about science.

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[6] In addition to the objectives indicated in this article, the study also sought to 1) identify motivations for attending to science communication actions and associated contexts; 2) identify what these audiences know and value about the discoveries and scientific applications of astronomy in their daily lives; 3) identify preferences regarding the form and content of science communication actions; 4) analyse the self-assessment of their knowledge of astronomy and of the processes of knowledge production (way of doing science); 5) identify changes in the aspects mentioned above attributed to the participation in an astronomy communication action.

If the information is of interest to them, these young people invest in finding more information using a search engine and selecting reliable sites. They do not look for science news in general, but rather, they search for science information on topics of interest to them and this interest may even have arisen through a news item they saw in their news feed on social networks. Their initiative to follow institutions on social networks, such as NASA and ESA, which publish news and information about science may thus be highlighted. Often these publications serve as a motto to search for additional information on the topic, using the search engine (usually Google) or following the links suggested in them.

> I think, for the start, for example, a person who follows NASA on Instagram looked for information, right? Because if you follow is because you are interested. (Female participant, 10th grade, focus group 6)

In the focus groups, participants tended to agree with the following statement:

> most young users get the news on their mobile devices as a result of being on platforms like Facebook or Twitter. They come across the news, rather than actively looking for it. They do this as part of living in the media, rather using media. (Boczkowski, Mitchelstein & Matassi, 2017, p. 1785)

> Yes, yes, yes, when you're following something, you find some information. To find out more, we must look for it, but we come across that information, we don't actually search it. (Male participant, 9th grade, focus group 5)

> I believe that [following science institutional sites] presents advantages and disadvantages because we can find news that may be of interest to us, but that we would never specifically have looked for that specific one. So, we follow things that have subjects we like, and we find the news, then of course we can keep searching and so on, but it is an advantage. (Female participant, 9th grade, focus group 5)

Although the participants mentioned not looking for science news in the media, we observe that they were informed about the most prominent news in the press - they recognised the photograph of the black hole captured by the international Event Horizon Telescope (EHT) team, for example, which shortly before the accomplishment of this study had had a strong presence in the conventional media. The casual finding of news related to science on social media appears to be satisfactory since it raises awareness about science news widely covered by the media.

The search for reliable sites and accurate information was frequently mentioned by participants, who pointed out that the school neither succeeds in training students to search for science information on digital platforms, nor does it promote debate and decision-making strategies on science issues. As far as they are concerned, the school

subject Citizenship and Development could teach them more about this topic, given its importance on "learning how to be a citizen" (male participant, 9th grade, focus group 6).

> Yes, school is the starting point for us to become citizens, so we should learn everything, that is, learning this is very important so that we can make a decision and make a change in something, and at least be able to do it in an informed way (sic). (Female participant, 9th grade, focus group 5)

For these young people, the institutions will be responsible for giving credibility to the information found, because when asked about the criteria used to ascertain whether science news is credible or not, they refer to names of people or institutions most popular in the scientific world (such as NASA sites). Nonetheless, they admit that it is not always easy to assess the credibility of scientific information and state that school should enable them to learn how to distinguish between reliable information from other types of information:

> of course, there are sites which you almost immediately know [that they are fake], but some other sites you do not detect, those that have wrong or outdated information. So, I thought it was important to know how to look for credible information. (Female participant, 9th grade, focus group 5)

With regard to information and science-related knowledge, the discussions in the focus groups revealed trends in media consumption among the participants. Those interested in the area highlighted reading books (Stephen Hawking was mentioned several times), watching series (especially the Cosmos series), documentaries and presentations (mainly from National Geographic or TedTalk). Book reading of and the watching series seem relevant in finding and adopting a posture that tends towards a professional identity related to science (physicist and astronomer, in this case). In fact, all participants with a manifest interest in the area shared the following media consumptions: they followed pages of institutions related to space, such as those of NASA, ESA and European Southern Observatory (ESO) on social networks (especially on Instagram); they read science dissemination books related to Physics or Astronomy; they watched series and documentaries on television or on YouTube. These young people were looking for aspects with which they identified, not only with the other participants, but also the researchers with whom they contacted, as is shown in the excerpt below:

> I would also like to say that when talking with the researchers, one of them encouraged me a lot because I really like Physics and another one in particular said that when he read Stephen Hawking's book for the first time he started to like Physics. That made me think —"It was very much what I was going through!" — I read Stephen Hawking's books and that's where my interest in this area comes from. (Male participant, 10th year, focus group 3)

Regarding the creation of content, the participants indicated school works and presentations for educational purposes. They stated that educational agents assume

that young people know how to conduct research on the internet and select information, disregarding the fact that they should teach how to do it, whether for science or other subjects. Participants also mentioned that they had little support from school agents concerning initiatives that would meet their science interests, such as lectures, debates, and other events, attaching great significance to them to become valued citizens.

Motivations, representations and professional aspirations

About half of the participants (59% in week 1; 39% in week 2) stated that they were interested in Astronomy and Space Sciences, and had considered following that academic subject or a similar one, so they attended this activity as a way of validating their intention, in order to better understand what an astronomer does and also to get in touch with the science subjects they intend to study at university. For the most indecisive, this action would allow eliminating possibilities regarding academic or professional options. Others were curious to know a little more about Astronomy, choosing to spend their free time on vacation following the suggestion of parents or friends.

We do not perceive gender differences regarding the aspirations of these young people in relation to Physics or Astronomy. In fact, boys and girls alike have acknowledged their interest in the area. In spite of considering that there are no noticeable gender differences when taking up the profession of astronomer (in the questionnaires the vast majority disagreed with the statement: "space scientists are usually men"), when they discussed scientists they knew, such as authors of books in the field or series, as well documentaries they saw, they referred only to men (Stephen Hawking, Neil deGrasse Tyson, Carl Sagan, Michio Kaku). One of the participants reported:

> there are more male astronomers than women but it has more to do with the fact that (...) the informal education that women receive is a bit different than that of men. Therefore, women are usually less connected to areas like astronomy than men. Informally, for example with toys, or with series or with... in the informal world, from an early age men are more connected to science and technology-related areas of than women, and hence this is observed in the percentage of women that are connected to Astronomy. That's what I think. (11th year, questionnaire discussion group at week 1)

Despite assuming they do not have any stereotypes regarding what being an astronomer represents, participants emphasised that stereotypes are present in society, especially as regards older people, since they see the astronomer as a "closed, antisocial person, who is focused on calculations, and does not have much ability to talk to people, yes, very focused on his area "(female participant, 9th grade, focus group 5). Younger people "are already aware that this is not the case, older people see it that way" (male participant, 9th grade, focus group 5).

To undo stereotypes, they suggest that if the elderly contact professionals in the field they will see that there is no typology related to gender or culture, but a diversity

of people with a common interest. This awareness regarding the existence of stereotypes related to science and scientists, assuming that these representations do not exist among UJ participants, may result from in the UJ experience, which included getting in contact with professionals of different genres and cultures.

When asked about the preferences of certain leisure activities, the participants highlighted TV programs about Space (*Cosmos*, for example) and films about Space (*Interstellar* and *Lost on Mars*, for example). This suggests that, although young people do not often seek scientific journalism, other media content for entertainment and fiction has a strong involvement. Other options that were mostly mentioned in the questionnaires were: "talk to someone about Space" and "find out more about Space on the internet". In group discussion, video games about Space were criticised by some participants as being unrealistic and more of science fiction than science. "The simulations are better" (male participant, 10th year, questionnaire discussion group in week 2).

The action "talking to someone about the subject of Astronomy" was discussed among young people, who see the week at UJ as a way of sharing their common interest. At school, with friends and teachers, this possibility does not exist, as they often do not find people who show interest in Astronomy and feel that talking to teachers can be misunderstood by peers (such as "schmoozing"). Sharing Astronomy information on the internet is also "not worth it" (female participant, 11th grade, focus group 4). Thus, participation in this event was also a way of meeting and interacting with other young people interested in the area. The lack of interest most participants referred to when talking about friends and family is attributed to the fact that Astronomy related contents were removed from the curriculum, which – they say – compromised the general interest of people in the subject.

Participants also reported that the school neither teaches them to read scientific articles, nor to interpret science information. They often feel the need to improve their understanding of the vocabulary used in science communication and find that scientific-technological courses do not teach them how to communicate, debate and present scientific results. In fact, they suggest that, such as the subject Mathematics Applied to Social Sciences was created for secondary courses in the Humanities, there should also be a subject designated Portuguese Applied to Sciences. The latter would encompass these aspects which they consider crucial for a putative professional future in the sciences. This is a relevant point if we consider that one of the indicators of scientific literacy is precisely to be able to interpret science content, such as scientific reports published in the media.

In general, the participants were very critical of the absence of Astronomy and Space Sciences in formal learning spaces, suggesting that lectures and debates or participation in study visits and projects are essential for the promotion of this scientific area (and even other subjects of interest to other students) at school. In this sense, from the participants' discourse we can infer that school fails in the training of citizens, either by not making available a wide diversity of offers, or by not encouraging its students to participate and interact in science matters, namely using the media.

Conclusions

An interesting conclusion of this study was the acknowledgement of almost unanimous criticism from the participants to the lack or little expressiveness of the topic Astronomy and Space Sciences in school curricula in Portugal. As the school does not promote interest in this area, it seems clear that informal activities play an important role in its promotion. Books, films, documentaries and presentations in different formats seem to be predominant in defining an identity related to science, which highlights the role of informal learning, namely in the media, in this definition. We can infer that the consumption of the aforementioned formats contributes to the image and knowledge of science that the younger ones are building, thus contributing to their scientific literacy (Tang, 2013; Tang & Moje, 2010). In this sense, in addition to considering the analysis of news from scientific reports published in the media as an indicator of students' literacy level (Korpan et al., 1997; Norris et al., 2003), providing a critical analysis of information and representations of science in the different types of media content, may be a more robust indicator of critical scientific literacy.

Although the participants of this study refer to stereotyped representations of science in society (gender, class and ethnicity, for example), they said that they are immune to them, showing a certain degree of critical analysis that may result from their own experience at UJ, and the encounter with the diversity of elements of the scientific community working at CAUP. Despite this, when referring to scientists they followed in the media, they only highlighted male scientists, in a discreet allusion to a male role of authority, power and credibility of science which is still prevalent in several spaces, formal and informal, namely in the media (DeWitt & Bultitude , 2018; Lane et al., 2012). Taking this aspect into account, it appears that the potential contribution media and science learning in non-formal contexts have in the development of critical science literacy looks unexplored, notably in questioning discourses about science and representations of scientists in the media.

What we observe appears to contradict the idea that young people do not seek information about science. Although they do not deliberately search for science news in general, but rather find it haphazardly, young people follow pages of institutions that meet their interests, on social media. These casual encounters with science news often serve as a motto for researching complementary information, driven by the participant´s particular interests. Young people understand that this attitude is related to the search for science news, at leisure, when they are using social platforms, which is consistent with the consumption of news in general. Boczkowski et al. (2017) state that the consumption of news by young people appears in an undifferentiated form from the rest of the social information and entertainment in digital social networks. Furthermore, they state that this casual consumption is linked to frequent internet access on mobile devices, accessing the information several times a day wherever they are, seeing only its partial content, usually superficially. This superficial and casual form may justify the scant or almost non-existent attitudes of sharing or commenting on the news, also observed in relation to the science news in this study.

Most of the participants identified an affinity with some areas of science (namely Physics and Astronomy), which were often undertaken in opposition to other areas such as Arts and Humanities. Speeches that included references to "them" and "us" were frequent, raising concerns about the compartmentalised way in which science processes are achieved, with little reflection on other contexts and connections of science in society, in addition to the facts, knowledge or applications of science. The idea that science can "save" and improve people's lives seems to disregard the constraints of the social, economic and financial processes and contexts in which science is undertaken, to which the participants seem to be completely oblivious (except for the question of financing, mentioned by some in their speeches).

We realised that the participants were comfortable as recipients of science information in spaces that they considered to be of authority and credibility. Helping them envision themselves as future scientists by initiating debates on how they can communicate their own science work (in the media and elsewhere) as well as how they can promote the democratic participation and governance of science (Lewenstein, 2015) in a dialogical relationship between science and society, could be encouraged at school and in informal contexts of science communication. The development of skills as not only consumers, but also as potential content producers could be an opportunity to work on critical literacies for science and the media in convergence.

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Protection of minors in the European digital audiovisual context: a necessary dialogue between parents, academy, regulators and industry

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Abstract

This paper represents the initial phase of a larger project being developed by the "Media, communication policy and democracy in the European Union" research group, which is currently working on the study "Communication policies, SVOD platforms and values education for minors in the single digital market (2020-2022)". We wish to pursue in this study that, beyond technological considerations, it is necessary to expand the scope of child protection by establishing mutual collaboration between regulators, distributors and video on demand services, as well as consumers and parents' organisations, in an effort to further enhance cooperation and mutual understanding (European Regulators Group for Audiovisual Media Services, 2017b, p. 75). It is for this reason that we believe that the academic sphere can also be invited into this wide-ranging discussion on child protection to contribute reflections on a key aspect: audiovisual and media education, an essential pillar of protection in addition to filters, external limits, and electronic labelling. We thus uphold a vision that not only considers the "digital stuff" but also highlights the need for "ethos stuff" (Goggin, 2008, p.89). In this respect, we have considered it essential a literature review on the concept of media literacy. Secondly, our qualitative methodology involves an analysis of the instructions issued by the European Union and their implementation in Spain. In this stage, we have conducted desk research based on a narrative analysis of the documents and programs of different institutions in order to chart the evolution of the question in recent years, at a time when the digital environment has changed more quickly than ever before. This same type of analysis is also conducted on the initiatives of European and Spanish companies to determine whether they are implementing child protection strategies.

Proteção dos menores no contexto digital europeu: um diálogo necessário entre pais, academia, reguladores e indústria

Resumo

Este artigo representa a fase inicial de um projeto mais vasto conduzido pelo grupo de investigação "Media, política de comunicação e democracia na União Europeia" que está atualmente a desenvolver o estudo "Políticas de comunicação, plataformas SVOD e educação de valores para menores no mercado único digital (2020-2022)". Neste estudo, pretendemos explorar a ideia de que, além das considerações tecnológicas, é necessário alargar o âmbito da proteção infantil, estabelecendo colaboração mútua entre entidades reguladoras, distribuidores e serviços de vídeo *on demand*, bem como organizações de consumidores e de pais, num esforço para melhorar ainda mais a cooperação e o entendimento mútuo (Grupo Europeu de Reguladores dos Serviços de Comunicação Audiovisuais, 2017b, p. 75). Tendo por base este objetivo, consideramos que a esfera académica também pode ser convidada para este abrangente debate sobre proteção infantil, a fim de contribuir para um aspeto fundamental: a educação audiovisual e mediática como um pilar essencial de proteção, além de filtros, limites externos e rotulagem eletrónica. Assim, defendemos uma visão que considera não apenas os aspetos digitais (*digital stuff*), mas também destaca a necessidade de aspetos éticos (*ethos stuff*) (Goggin, 2008, p.89). A esse respeito, é essencial uma revisão da literatura sobre o conceito de literacia mediática. A metodologia qualitativa envolve uma análise das indicações da União Europeia e a sua implementação em Espanha. Nesta fase, realizámos pesquisas de dados secundários com base numa análise narrativa dos documentos e programas de diferentes instituições, a fim de mapear a evolução da questão nos últimos anos, num momento em que o ambiente digital mudou muito rapidamente. Este tipo de análise também é conduzido nas iniciativas de empresas europeias e espanholas, no sentido de determinar se estão a implementar estratégias de proteção à criança.

Palavras-chave

literacia digital; menores; proteção; Europa; reguladores

Introduction

In the introduction to its report *Protection of minors in the audiovisual media services: trends & practices*, the European Regulators Group for Audiovisual Media Services (ERGA, 2017b) makes special reference to the need for collaboration between media companies and regulators to provide tools and mechanisms that will enable parents to protect their children in the digital era in accordance with their preferences (p. 4).

Moreover, a few months ago, at the "Provuldig Conference", we presented references to how, in the academic sphere, research by Lievens, Livingstone, McLaughlin, O'Neill and Verdoodt (2018), Potter and Steemers (2017), and others, provided evidence of the need to regulate the current audiovisual environment in order to protect children. Although these studies once again demonstrated the complexity of the issue in a globalised world, there seems to be a consensus among academics on basic common issues to ensure the protection of minors. We even drew some interesting conclusions in our study on the proposal put forward by Livingstone and Third (2017) in relation to

using the technological debate to demand dignity and protection for children in contexts of disadvantage. In this way, we also tied in with the debate between digital competence and informational digital competence, a debate that inevitably leads us to media literacy (Area & Guarro, 2012; Valverde, de Pro-Bueno & González, 2018).

A notable feature of the report produced by ERGA (2017a, p. 68) is the proposal of a technical experience and pilot project called "Miracle", aimed at developing a standardised electronic model for age-based classification in the audiovisual context that would be applicable across borders and to different digital devices. It is important to bear in mind that a few years ago the consumption of audiovisual content by minors could be controlled by means of age-based classification and labelling on different products consumed outside the electronic context. However, the new routes of online access to audiovisual content require a new way of thinking about the information that such classifications provide. With this in mind, the "Miracle" project was launched to provide a unique age-based classification and labelling system based on existing models. In this way, the experience highlighted how cross-referencing the data on these classifications could be useful to the industry, educational institutions, and users. The participating consortia were the British Board of Film Classification (BBFC), the Netherlands Institute for Classification of Audiovisual Media (NICAM), the authority that manages the Pan-European video game self-regulation system (PEGI), the German Association for Voluntary Self-Regulation of Digital Media Service Providers (FSM), and the National Safer Internet Centre in the Czech Republic. All these organisations participated in "Miracle" in an effort to develop an ecosystem of age-based electronic and online labelling (infrastructures, services, and apps) that could be applied to the same content, regardless of the jurisdiction, and to the different EU members, even when they have different legislation related to child protection.

Another aspect that we believe is of relevance to our study is the recognition of the indiscriminate use of different devices by children to consume content, as shown in the following figure.
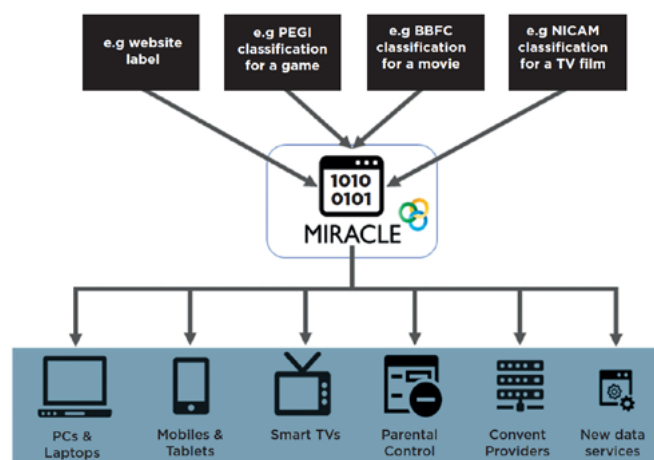

Figure 1: Interoperability (project "Miracle")

Source: ERGA, 2017a, p. 7

In Spain, for example, the devices that minors use most to access the internet are mobile phones (76%), followed by smart TVs (72%), video consoles (29%), computers (28%), and tablets (26%), according to the report *Actividades, mediación, oportunidades y riesgos online de los menores en la era de la convergencia mediática* (Garmendia et al., 2019, p. 17). According to the figure shown above, the single classification system proposed by "Miracle" is also intended to be operable for all devices and to coexist with other filters like parental control, while also potentially serving content providers and being applied to new data services.

However, despite the interesting contributions offered by "Miracle", we have to point out that, like other EU initiatives, it is not a mandatory project and therefore it is up to the member countries to voluntarily choose whether to adopt it.

> But beyond this technological consideration, the ERGA (2017b, p. 75) report concludes that it is necessary to expand the scope of child protection by establishing mutual collaboration between regulators, distributors and video on demand (VOD) services, as well as consumers and parents' organisations, in an effort to further enhance cooperation and mutual understanding. It even points to the possibility of establishing a document for a broader public in the form of a best practices guide.

Hypothesis and objectives

This is precisely the line of research we wish to pursue in this study, moving beyond a merely technological model. It is for this reason that we believe that the academic sphere can also be invited into this wide-ranging discussion on child protection to contribute reflections on a key aspect: audiovisual and media education, an essential pillar of protection in addition to filters, external limits, and electronic labelling. We thus uphold a vision that not only considers the "digital stuff" but also highlights the need for "ethos stuff" (Goggin, 2008, p. 89).

Based on these considerations, for this research we posited the following hypotheses:

1. technological tools (parental control, age labelling, and filtering systems) are not enough to protect minors in the digital environment;

2. the mechanisms to prevent harm and risks to minors need to be based on a new way of viewing media literacy as a task shared between regulators, parents, educators, and content producers.

To test these hypotheses, we proposed a series of objectives. The first of these involves a review of the definition of media literacy in an effort to understand how new ways of consuming require us to reassess what media literacy is and who is responsible for teaching it. It is also essential to examine the orders and instructions issued by the European Union over the years in order to analyse the evolution of the discourse, from the first approaches based on the use of technological tools to the latest programs promoting the creation of quality content and the active role of minors in the development of the kind of critical awareness they need to make safe use of online spaces as creators and consumers.

Finally, we are interested in determining how these programs have been implemented in Spain and also in studying the role of the industry in this country in promoting initiatives that recognise the sector's responsibility for the protection of children and youth.

Methodology

For this research, we have adopted a qualitative methodology with a critical dimension. In this respect, we have considered it essential in our research to adopt a methodology that includes, first of all, a literature review on the concept of media literacy. We believe that any analysis of the protection of minors in the digital environment must begin with a theoretical framework that can help identify the different approaches to and perspectives on media education. This will then make it possible to determine the issues posed by the different approaches and also to confirm the intellectual stance on which to base the study. The justification for this heuristic phase of our methodology lies in the fact that it involves characterising the problem as an academic discussion and identifying theories that can serve to describe it and contribute to a redefinition of media literacy.

Secondly, our qualitative methodology involves an analysis of the instructions issued by the European Union and their implementation in Spain. In this stage, we have conducted desk research based on a review of different types of documents (reports, directives, strategy documents, summaries, commercial agrees between mobile operators, code of conduct and ethic of telecommunications companies, work papers, etc.) of European institutions and industry organisations (Council of Europe, European Parliament, European Commission, European Audiovisual Observatory, European Regulators Group for Audiovisual Media Services, GSMA, ICT Coalition), in order to chart the evolution of the question from 1996 to the present, when the digital environment has changed more quickly than ever before. This same type of analysis is also conducted on the initiatives of Spanish companies (National Commission on Markets and Competition [CNMC], Mediaset, Telefónica, Vodafone, Filmin) to determine whether they are implementing child protection strategies. The review, in both levels, have involved next steps: identification of the topic of research (minors, online, protection), identification of document sources (official/nonofficial; government/non-government; public/private or commercial); comparation between institutional recommendations and practical applications by industry organisations and final conclusions.

Towards a new kind of media literacy

It is clearly a demonstrable fact that new technologies, the use of mobile devices, and the possibilities of the internet have changed not only the way we produce and consume content, but even the way we participate in cultural activities and relate to one another. It was some years ago that the European Union began taking special note of the risks, but also the opportunities, that the internet offers minors. A key point revolves around knowing what tools can be used to offer media education to children so that they

can feel protected in the digital environment. One major issue that may emerge relates to skills development, as there appears to be an assumption that the more children know about digital, structural (use) and strategic (applicable) competencies, the less vulnerable they will be to the risks of online interaction, such as cyberbullying, grooming (sexual harassment) or invasion of privacy. However, authors like Sonck and de Haan (2014) have found that the acquisition of such skills does not always guarantee protection from risks. In fact, the studies conducted on this question (Livingstone & Helsper, 2010; Sonck, Kuiper & de Haan, 2012) have produced "inconclusive results with regard to the effectiveness of digital skills in keeping young people safe on the internet. It has been found that more skills coincide with more risks and have no significant effect in preventing unwanted experiences" (Sonck & de Haan, 2014, p. 97). These researchers also point to an interesting consideration for our paper when they propose a more in-depth exploration of these digital skills, connecting them with media literacy (Sonck & de Haan, 2014, p. 90).

> Over the years, the view of media literacy has taken an individualised ethical position in relation to the consumption and selection of audiovisual content (O'Neill, 2010, p. 323). However, in a context of increasing possibilities for choosing content on multiple devices in real time and on demand, the question of media education becomes a complex matter for several reasons.

The first of these is the need to clarify what we mean by media literacy, as falling under this term are other concepts like informational, audiovisual and digital literacy. This is why Koltay (2011, p. 212) defines media education as "an umbrella concept" that can be tackled from different perspectives. At the same time, Cordes (2009, p. 3) puts forward the view of a multimodal form of literacy as "the synthesis of multiple modes of communication (…) The multimodal object can require a range of tools, skills, and sensibilities and often reflects collaborative as well as individual effort". Along the same lines, Tyner (2003, p. 373) speaks of different forms of multiliteracy as a way of addressing the needs of media, digital, visual, or computer literacy. In our study, we want to stress that we will be using the term media literacy with a definition that extends to the audiovisual and digital contexts. According to the researchers Thoman and Jolls (2004, pp. 23-24), the characteristics of this kind of media education are as follows:

1. media literacy is focused on process more than content. In this sense, what matters is not so much the technological aspect as the capacity to identify problems, learn concepts, and generate connections and ideas based on a media message (whether in print or electronic);

2. media literacy broadens the concept of text, as texts are not only written but also verbal or audiovisual, multimedia and digital;

3. media literacy is characterised by the principle of questioning and criticism of the important aspects emerging from the media ecosystem.

Media literacy therefore has the objective of promoting a critical perspective and expanding the intellectual capacities to create citizens rather than mere consumers, capable of exercising their civic responsibility in democratic societies.

The second reason for the complexity of media literacy lies in the question of who should be responsible for teaching it. In this respect, we again agree with Sonck and de Haan (2014) when they speak of an educational process shared by the family, school, government, and industry. They also speak of mutual collaboration among minors themselves in the development of their responsible use of the internet. We would thus argue that media literacy needs to be taken on as a task shared by parents, educational institutions, regulatory bodies and content providers. It is a task aimed at developing a critical attitude in children so that they are able to discern which content may be harmful.

This integrative view of media literacy was also put forward recently in the report titled *Looking forward: technological and social change in the lives of European children and young people* (Blum-Ross et al., 2018). This report took the innovative approach of gathering opinions through interviews conducted with the industry and through focus groups that included parents, young people, and educators from five EU member states: Belgium, Bulgaria, Germany, Ireland and Italy. Industry representatives included Altice Portugal, Facebook, Google, Telia, Vodafone, and Orange.

One of the most interesting considerations of this report, for example, is the idea that parents can act as "media mentors", "not only helping children find resources but also modelling good behaviours themselves" (Blum-Ross et al., 2018, p. 19). We agree that the task of parents should be not only to set guidelines but also to encourage their children's empowerment through an education in values, which should be understood as another aspect of parental care. Sonck and de Haan (2014, p. 98), for example, describe different strategies like active mediation, the application of technical restrictions, the establishment of standards for restrictions and monitoring of internet use. One point that we believe is important in this respect is related to the need to raise awareness among parents about the introduction of online consumption as a reality in the education of their children.

Obviously, this parental work extends to the school. In the aforementioned report, for example, the researchers argue that all stakeholders in education need to work together, from parents to teachers and school authorities. The researchers are thus clearly aware that "child protection" is a "huge issue which can only be tackled when responsibility is shared and when the whole school community is actively involved" (Blum-Ross et al., 2018, p. 25).

Europe's role

The European Union has also responded actively to the need to protect minors, especially in the new digital environment. As early as 1996, the European Commission published the *Green paper: protection of minors and human dignity in audiovisual and information services* (European Commission, 1996a), which recognised the importance of this issue, above all because the new media platforms could contribute more visibly and relatively quickly than traditional media to make this type of content more accessible to

minors. While the *Green paper* was a starting point, it would be the *Communication on illegal and harmful content on the internet* (European Commission, 1996b) that would propose the first specific control measures for the protection of minors, not through an awareness of censorship but through the creation of a critical approach to the use of online content. To do this, the Commission adopted a rather naive starting point focused only on technological standards, covering parental control software, content filtering systems and an age-based labelling system.

Although it was not a monolithic proposal, and deferred in all cases to the principle of subsidiarity, the Commission laid the foundations for a range of programs for the protection of children in the digital environment, with an awareness, as the European Audiovisual Observatory (EAO, 2012) states in its reports *Protection of minors and audiovisual content on-demand (2012-6)*, of the need to evaluate and rethink the regulatory and legal framework protecting minors in the audiovisual environment in keeping with the dynamism and changing nature of the media landscape: a landscape for which the model defined in the EU Audiovisual Directive (Directive [EU] 2018/1808) was no longer relevant. Acknowledging that the model for the protection of minors in the audiovisual environment was transitioning to the online world, the new circumstances brought about by the internet have made it impossible to apply the traditional protection standards.
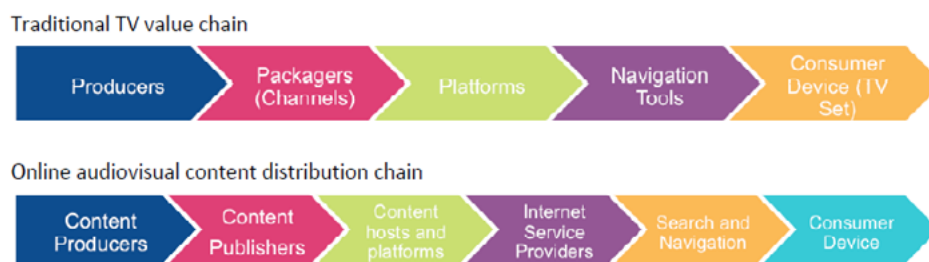
Figure 2: Comparative audiovisual chain in traditional and online ecosystem
Source: ERGA, 2015, p.47

These parameters have been applied to the development of the different stages of the "Action plan for a safer internet", created in 1999 to promote an environment favourable to the development of the internet-related industry, by encouraging safe use of the web and combating illegal and harmful content. The basic pillars of action (safety through a European network of hotlines for reporting illegal content, the development of content classification and filtering systems, initiatives to raise awareness and educate through media literacy programs, and the development of self-regulation initiatives) have been maintained in the successive stages of the plan's implementation, although in all of these areas there has been an increased awareness of the importance of issues related to the protection of minors, their dignity and their privacy with the increasing role

played by technology in their everyday lives (according to Commission data, one out of every three internet users in the EU is a child[1]).

Thus, the second stage of the program ("Safer internet plus", 2005-2008) highlighted the need to expand the strategies for action in view of the changes taking place in the world of communications.

In 2009, the third stage was launched, in the context of a consolidated online environment used more and more actively by children even though they are also especially vulnerable.

The intense activity of European institutions in this area since the implementation of the first project (EAO, 2015) has resulted in a range of initiatives: the "dotSAFE" program; the "Safer internet forum" (since 2004) with representatives from the industry, legal authorities, legislative institutions and civil organisations (parent-teacher associations, consumer groups, child protection groups, etc.); Insafe and INHOPE (global network of hotlines for reporting illegal content online and with a commitment to eliminating online child sexual abuse); "EU kids online" (mapping experiences of children online to assess risks and safety on websites); "Mediappro" (media literacy project); the creation of the "SIP-Bench" program (parental control strategies); the celebration of Safer Internet Day; the creation of the "Internet governance forum"; the establishment of points of contact where children can get answers to their questions about how to navigate the internet safely and to combat cyberbullying and online sexual abuse thanks to the work of Safer Internet Centres (SICs); the Poscon (Positive Online Content and Services for Children in Europe) Network; European NGO Alliance for Child Safety Online; Net Children Go Mobile; SPIRTO (Self-Produced Images Risk Taking Online), etc.

The final stage began in 2014 and is still under way today, focusing on four main areas of action:

1. encourage the production of creative and educational online content for children and promote positive online experiences for small children;

2. increase awareness and empowerment, including teaching digital literacy and online safety at all schools in the EU;

3. create a safe environment for children through age-appropriate privacy configurations, wider use of parental controls, and age-based and content-based classification;

4. combat online child sexual abuse material and sexual exploitation of children.

The starting point for this stage was the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions European Strategy for a Better Internet for Children, published by the European Commission (2012), which examines the biggest challenges for the online sector in matters of child protection. It was completed with the release of the *Council conclusions on the European strategy for a better internet for children* (Council of the European Union, 2012), which introduced a new line of action dedicated to the promotion of quality content for minors, designed to complete the lines of action of the first three stages.

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[1] Retrieved from https://ec.europa.eu/digital-single-market/en/content/creating-better-internet-kids-0

This work reflects a recognition of the important role that quality online content for children in the online environment plays in counteracting illegal and harmful content: the term "quality on-line content for children" should be understood as the content that benefits children in some way – for example by increasing their knowledge, skills and competences with special emphasis on creativity – in addition to being attractive and usable to them, reliable and safe, and if relevant, content that makes advertising or commercial communication clearly recognisable as such (Council of the European Union, 2012, p. 4).

The Council also recognised that the availability of this type of content could encourage better use of the web, especially if children were also involved in the creation of content. The recognition of this active attitude of minors represents a notable difference from earlier stages, as the EU had always highlighted the important role that parents, educators and civil society should play in making the online environment safe, while leaving the creation, production and distribution of online content in the hands of the industry. With the new campaign (POCC: "Positive Online Content Campaign") the aim is to raise awareness about the importance of these kinds of materials, encouraging the involvement of children and young people, who need to develop an awareness that it is possible to participate in a safe online environment without the risk of harm.

The campaign is enhanced by decisive support for the digital literacy skills that the children need to develop from an early age to enable them to critically assess the content they find online, while protecting them from future online risks such as grooming, cyberbullying, sextortion, or revenge porn, or simply if they find inappropriate content while browsing the web. The rationale of the program is that by exposing small children to high-quality online content in their first online experiences, they will be able to learn to recognise the basic components of appropriate and positive content and services.

These new challenges are encapsulated today in the "Better internet for kids" (BIK) program, which has been established as a hub for practices, research, cooperation networks and a wide range of media literacy initiatives, such as "Global media and information literacy week", the university network on Media and Information Literacy and Intercultural Dialogue (MILID), the International Centre for the Exchange of Information on MIL, the Global Alliance for Partnerships on Media and Information Literacy (GAPMIL), and the MIL CLICKS movement.

Spain has addressed the BIK in the context of wider policy initiatives. The most relevant general political framework is the *Digital agenda for Spain*, published in 2013, which serves as an umbrella program for government actions related to the information society and the digital agenda[2]. The *Spanish national cyber security strategy*, launched in 2014, is also important as it covers areas like promoting a culture of cyber security for all citizens and raising levels of online protection (EAO, 2016).

The "Safe internet for kids" project was launched in February 2017, with the support of the Safer Internet Centre – Spain and the collaboration of the European Insafe network for young people, with the aim of reducing the amount of illegal content circulating on

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[2] See https://www.plantl.gob.es/digital-agenda/Paginas/digital-agenda-spain.aspx

the web and harmful online behaviours. One of its pillars is to encourage the positive use of the internet by children and adolescents and it includes resources for parents and consumers to promote the consumption of positive content. Although there are no specific agreements for the participation of minors and young people in the development of BIK program policies, in Spain we have the "La Infancia Opina" platform, a forum for all non-governmental organisations and other stakeholders involved in promoting child welfare, where the concerns of minors related to different issues are collected and classified.

Self-regulation initiatives

Although we have identified a change of policy with the inclusion of the creation of creative and quality content by children themselves, the EU has traditionally shown a preference for self-regulation that has been expressed in various initiatives since 2007.

The *European framework for safer mobile use by younger teenagers and children* (European Commission, 2007) was the outcome of the work of the High Level Group on Child Protection set up by Commissioner Viviane Reding in November 2006. The members of the group were GSMA Europe, mobile operators, content providers, child protection organisations, and the European Commission. The mobile operators and content providers signed the Agreement on Safer Internet Day, 6 February 2007, in Brussels (European Commission, 2007). Since that time, GSMA Europe and the mobile operators that signed the framework agreement have worked to implement it, especially by encouraging the participation of more mobile operators and ensuring the development of national codes of conduct for self-regulation that will facilitate its implementation.

In January 2012, several members of GSMA Europe joined the ICT Coalition for safer use of connected devices and online services by children and young people (CEO Coalition to make the internet a better place for kids). The objective of this industry coalition was to help younger internet users all over Europe to get the best use out of the online world and to deal with potential challenges and risks. The companies that joined the Coalition were: Apple, BSkyB, BT, Dailymotion, Deutsche Telekom, Facebook, France Telecom–Orange, Google, Hyves, KPN, Liberty Global, LG Electronics, Mediaset, Microsoft, Netlog, Nintendo, Nokia, Opera Software, Research in Motion, RTL Group, Samsung, Skyrock, Stardoll, Sulake, Telefonica, TeliaSonera, Telecom Italia, Telenor Group, Tuenti, Vivendi, and Vodafone.

The initiative changed its name in 2016 to the "Alliance to better protect minors online". The member companies were ASKfm, BT Group, Deutsche Telekom, Disney, Facebook, Google, KPN, the Lego Group, Liberty Global, Microsoft, Orange, Rovio, Samsung Electronics, Sky, Spotify, Sulake, Super RTL, TIM (Telecom Italia), Telefónica, Telenor, Telia Company, Twitter, Vivendi, and Vodafone. Also participating were the associations: BBFC, Child Helpline International, Coface, Enacso, EUN Partnership, FFTelecoms, FOSI, FSM, GSMA, ICT Coalition, NICAM, Toy Industries of Europe, and Unicef.

The Alliance emerged out of the recognition of the constantly changing risks associated with online services. In view of these risks, it proposes to identify potential areas where the safety and rights of minors could be compromised. At the same time, the Alliance recognises the need for a global approach that combines the efforts of parents and families, educators, civil society, national and international organisations, and public authorities, and the need to raise awareness through media literacy initiatives.

Strategy of digital media service providers in Spain

The major Spanish telecommunications companies, together with international online content providers with a presence in the country, have defined a clear strategy for protecting children and/or contributing to a better internet. This strategy is based on the following pillars: self-regulation and blocking harmful content; partnerships with key players; multimedia products and specific awareness campaigns; and promoting and supporting educational initiatives.

With respect to self-regulation and blocking harmful content, these companies have focused mainly on the application of the system of age-based classification for audiovisual products signed by operators in 2015 under the auspices of the National Commission on Markets and Competition (CNMC, 2015), which establishes the criteria applicable to all media service providers, both linear and non-linear, thus affecting VOD platforms. In fact, to date the system has been implemented by platforms like Wuaki.TV, Vodafone One TV, MiteleKids (Mediaset), LOVEStv (a platform run by Atresmedia, Mediaset and RTVE under the HbbTV standard), Movistar Plus and Netflix.

The new classification system establishes seven categories of potentially harmful content for children: violence, fear or anxiety, sex, drugs and toxic substances, discrimination, imitable behaviour, and language. Factors like the intensity and frequency of such content, how realistic it is, or its verbal or visual presence will determine the minimum age recommended for viewing.

In addition, the *Resolución por la que aprueban los criterios orientadores para la calificación de contenidos audiovisuals* (CNMC, 2015), established the following age categories to provide the public with suitable information on potentially harmful content: especially recommended for children; suitable for all ages; not recommended for children under seven; not recommended for children under 12; not recommended for children under 16; not recommended for children under 18; and X content. It is a very similar model to the "Amazon maturity ratings", used by many European countries.

Meanwhile, other online platforms like Netflix and Google Play apply the content classification for fiction of the Institute of Cinematography and Audiovisual Arts (ICAA).

A special case noted in the ERGA (2017b) report is that of the Filmin platform, which, with the help of "Yeeep! Kid's media", has developed a system of special categories (Christmas, friends, space, stories, etc.) to classify content targeting children in its FilminKIDS environment. Yeeep! offers television channels and media platforms an

audiovisual content classification service (audiovisual content guide for children aged two to 13) developed by international experts in education, as well as the production of audiovisual content for children and communication. Content is classified based on its contribution to the well-being and development of children.

In the interests of ensuring a safe browsing environment for children, companies with a code of ethics assess whether content meets their guidelines before it goes to air. In many cases, references to children in these codes are minimal. For example, the *Código ético Mediaset España* (Mediaset, 2016) includes only two child-related measures, both of which appear to be intended for linear television programs. These are: "nobody shall behave in a manner that induces, promotes, favours, permits or tolerates acts or attitudes that could be classified as prostitution or grooming of minors" (Mediaset, 2016, p. 10); and "the broadcasting of expressions or images that could be harmful to the sensitivity of the viewer shall be avoided whenever possible, especially at times of day when children could feasibly be watching television" (Mediaset, 2016, p. 14).

In the case of Telefónica, with its Movistar Plus brand, its code of ethics makes no specific reference to child protection, although such protection is present in its responsible communication standards and its responsible business principles. In these principles, the company asserts that "we dedicate special effort to promoting the responsible use of technology, (...). We are especially committed to the protection of children and young people online" (Telefónica, n.d., p. 16).

This is a commitment they have upheld for more than ten years. Already in 2007, Telefónica, together with Orange, Vodafone, and Yoigo, signed a code of conduct for mobile operators, designed to encourage responsible use by minors of the electronic content services provided on mobile phone networks. The commitments assumed and still in effect include:

1. proactive collaboration with educational institutions, child protection associations or agencies and official authorities in the distribution of information and the organisation of campaigns designed to encourage responsible use of mobile phones in schools;

2. collaboration with police forces in relation to content prohibited under criminal law, as well as providing assistance to authorities and entities dedicated to combating such illegal content;

3. offering information on how to use mobile services responsibly, detailing the measures that can be adopted by parents and educators to ensure such responsible use (GSMA, 2007, pp. 3-4).

To ensure this kind of safe browsing environment, telecommunications companies make parental control available to parents and legal guardians, with channel blocking and purchase PIN functions. Some companies even provide informational resources on what to do to avoid illegal content, stressing parental supervision, as parental control on its own is not fully effective. In any case, the companies acknowledge that they follow the standards for blocking such content established by the Internet Watch Foundation, a not-for-profit organisation that searches for paedophile content on the web in order to report it to the police.

Despite the concerns about this kind of content, parents are not taking suitable measures. According to data from the CNMC Household Survey in November 2018,

although 68% of Spanish families state that they are aware of the software that allows them to block unsuitable content, only 11,4% of parents have activated the parental control function (Mediaset, 2018).

Another of the measures adopted by online audiovisual content and service providers or platforms that have advertising is the segmentation of their advertising to prevent the promotion of products or services that are unsuitable for children.

With respect to the second pillar we identified above in the strategies of major companies, partnerships with key players, many such agreements have focused on the production of specific content for children and youth, as well as participation in educational activities and awareness campaigns. This means that our discussion of these partnerships will also provide examples of the other pillars mentioned at the beginning of this section.

The major telecommunications companies belong to the "Alliance to better protect minors online", the ICT Coalition, the CEO Coalition for a better internet for kids, or the European ENABLE program, whose purpose is to combat bullying in schools (Vodafone is one of its founding partners).

But Spanish and international phone operators also have strategic partnerships with social organisations such as the Insafe/INHOPE network, Safernet, Unicef, Fundación Ideas para la Infancia, or Pantallas Amigas. The organisation Pantallas Amigas has collaborated with Movistar (with whom it has launched the game SmartPRIVIAL), Vodafone, and Orange, as well as global Internet companies like Facebook and Google.

The most active operator is Telefónica, which engages in joint actions with stakeholder groups involved in child protection, such as Rcpi (Peruvian Network against Child Pornography), Conna (National Council for Children and Adolescents in El Salvador), Red de Aliados por la Niñez, Zentrum für Kimderschutz im Internet, and Capital Humano Social.

To offer an environment that encourages safe and responsible use of digital services by young people, initiatives have been launched like "Dialogando" (an online project to promote digital education sponsored by Telefónica with services available in 15 countries, conceived as an evolution of the Familia Digital website); "Movistar junior" (an app for children up to 12, with pre-school, child and youth levels), and "Digital parenting", by the Vodafone Foundation (Vodafone, 2018).

The most powerful online media literacy project in Spain currently is "(In)fórmate", announced in April 2019, which aims "to foster the ability and the desire of adolescents to access information offered by traditional media and online content, analyse it, contextualise it and evaluate it, thereby developing their critical thinking skills"[3]. According to its website, the project will be launched in September and has the objective of ensuring that young people "are able to distinguish useful and accurate information from false, unverified or irrelevant information (...), and that they have an interest in producing accurate and useful content diligently so that they can become active users"[4].

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[3] See https://informate.campusfad.org/proyecto/

[4] See https://informate.campusfad.org/proyecto/

This is an initiative of Google and the organisation Fundación de Ayuda contra la Drogadicción (FAD), with the support of the Spanish government and a large number of media organisations: Atresmedia, Mediaset, Movistar, Prisa, Unidad Editorial, Grupo Vocento, Efe, Europa Press, Forta, Grupo Godó, Grupo Joly, Grupo Zeta, Henneo, Ilunion, La Razón, Onda Cero, Prensa Ibérica, Promecal, and RTVE. It also has support from Twitter and from the fact-checking projects Maldita.es and Newtral (which has also launched a media literacy project of its own).

The target audience for "(In)fórmate" is young people aged from 14 to 16 who are in third or fourth year of secondary school. According to the project's website, teachers can connect "(In)fórmate" content with key competencies in the Spanish educational curriculum: linguistic communication, digital competencies, learning how to learn, social and civic competencies, and cultural awareness and expression.

The project also provides direct contact with the media and with information professionals. To this end, it offers experiential videos that present an inside view of how a media organisation works, and how information is selected, analysed, verified, prepared and published.

Moreover, to assess skills acquisition and the use of critical thinking, it proposes an informational content creation contest, either in written or audiovisual form, with the support of media professionals as mentors.

To facilitate the teaching-learning process, "(In)fórmate" provides teachers with a guide containing audiovisual resources and activities to do in the classroom.

In short, the vast majority of online audiovisual service and/or content providers have taken steps aimed at protecting children. Based on Unicef's *Guidelines for industry on child online protection* (Unicef, 2015), the measures adopted by the industry mainly involve the integration of considerations related to the rights of the child into company policy, promotion and/or collaboration with other organisations to create a safer online environment for children, and the implementation of digital activities or projects to educate children and youth, as well as their parents and teachers, in responsible use of the internet and ICTs.

Conclusions

A few months ago, through a forum group organised with representatives from the media industry (Movistar, RTVE, A3Media), our research group at Universidad de Sevilla was able to confirm that feedback between the corporate and academic sectors served to articulate opportunities for collaboration, while also calling the attention of regulatory bodies like the European Audiovisual Observatory.

We thus believe it essential to explore the challenge that the new audiovisual habits of children in the online context represent for the different agents involved. In this regard, content providers cannot sidestep their responsibility for ensuring the protection of vulnerable groups, including children, who are digital natives in this reality. On the

other hand, regulators need to establish limits that do not constitute a substitute for parental control or an excessive burden on content providers. Moreover, parents also need to take responsibility for the type of content their children consume, taking into account the discriminatory capacities of minors. And on this question, the academic research conducted should include studies of media literacy, given that protecting children also involves educating them in media consumption.

As we have just suggested, this is no easy task, as we are dealing with a problem that requires dialogue between educators, regulatory bodies, content providers, and parents. In this sense, we believe both the regulation of the sector and media literacy to be important, as both are identified as necessary for the protection of minors in the digital context. Furthermore, although it is beyond the scope of this paper, we also want to highlight the role of children themselves in the acquisition of skills that will enable them to create content as part of their audiovisual education in the digital environment, as an important subject for future research.

Finally, we offer a series of conclusions that confirm our initial hypotheses and point to possibilities for future research:

1. parents play an essential role in the protection of minors in the digital environment, but this role cannot be limited to technological controls. The family needs to understand that values education is a necessary part of parental care and of media literacy;

2. the task of education in media literacy needs to be shared by parents and educational institutions, but also by European regulatory bodies and content providers. It is not the exclusive responsibility of schools, but an obligation to be assumed by society as a whole;

3. the ultimate objective of this mutual collaboration between the industry, regulators, parents, and educators is to help children to develop skills and competencies that will enable them to think critically and to create quality content as part of their digital education.

In this study we were interested in conducting a theoretical debate and analysis of research and experiments carried out by academics, regulators and companies as part of the current European circumstances. Therefore, we did not consider it necessary to mention the conclusions reached by the Forum Group as their research was based on a local case. For this reason, in the next phase of our research we propose to include these conclusions as part of a more regional analysis that extends the study to the active role of minors themselves in the digital environment. In this way and following studies such as *The class: living and learning in the digital age* (Livingstone & Sefton-Green, 2016), our intention is to do a field analysis that includes Spanish children. Based on the ideas drawn from the Forum Group, we plan to carry out a similar experiment in institutes in Andalusia with the aim of promoting the best skills and critical thinking among minors that enable them to create content as part of their own digital education.

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Children, young people and the news: a systematic literature review based on Communication Abstracts

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Abstract

Despite having their roots in Medicine and being more frequently used in Natural Sciences, systematic reviews can also be extremely useful when it comes to the Social Sciences, namely when the aim is to conduct a study that identifies and maps the subject of interest of scientists in a given area. In this paper, a systematic literature review has been applied to the main database in the field of Communication, Communication Abstracts, as to try and understand who studied the relationship between children and/or young people and the news, when and where that happened, as well as the angle of the investigation. A sample of 146 titles and abstracts was reviewed. The findings show that most of them were reception and representation studies, whereas production studies were in much smaller number; studies on parental mediation and journalists' ethical concerns when covering events involving children and young people were practically residual.

Keywords

children; young people; news; journalism; systematic literature review

Crianças, jovens e notícias: uma revisão sistemática da literatura a partir da Communication Abstracts

Resumo

Apesar de terem a sua raiz na Medicina e de serem mais frequentes nas Ciências Naturais, as revisões sistemáticas da literatura podem revestir-se de grande utilidade, também, nas Ciências Sociais, nomeadamente quando se pretende empreender um estudo que identifique e mapeie o que foi alvo de interesse por parte dos cientistas num determinado campo. Neste artigo, a técnica de revisão sistemática de literatura foi aplicada à principal base de dados no campo da Comunicação, a Communication Abstracts, com o intuito de perceber quem, quando e onde tem estudado a relação entre crianças e/ou jovens e notícias e qual tem sido o ângulo privilegiado pela investigação. Uma amostra de 146 títulos e resumos de artigos foi analisada. Os resultados revelam que os estudos de receção e de representação dominam a investigação no tema em apreço, sendo pouco expressivos os estudos sobre a produção e praticamente residuais aqueles que se debruçam sobre a mediação parental e as preocupações éticas dos jornalistas quando cobrem acontecimentos que envolvem crianças e jovens.

Introduction

"Newton could not have seen what he saw if not for Galileo, Kepler, Descartes and others" (Fiolhais, 2011, s. p.). This is how Portuguese physicist and essayist Carlos Fiolhais dissects, on *De rerum natura* blog, the evocative metaphor of dwarves standing on the shoulders of giants, according to which early discoveries allow us to see more. And further. The idea, first attributed to twelfth-century French monk Bernard of Chartres (and immortalized in the blue stained glass of the cathedral at the French city with the same name, in which evangelists stand on the shoulders of prophets), if applied to science, conveys this vision of scientific work as a *continuum*, and of advances in knowledge being based on previous findings. Still according to that same perfect depiction: "building science is like building a human pyramid" (Fiolhais, 2011, s. p.).

It is in this cumulative view of scientific work that lies the importance of knowing the state of the art of a given field before conducting any kind of research. Literature review is, thus, the basis of any research and is carried out with the intention of synthesizing everything one knows about a particular area of knowledge and promoting future researches (Carver, Hassler, Hernandes & Kraft, 2013).

Vom Brocke, Simons, Bjoern Niehaves, Bjorn Niehaves, Reimer, Plattfaut and Cleven (2009) stress the fact that the significance of this work is based on the search for relevant sources and their contribution to guarantee the research's relevance and rigour. The authors resort to Baker (2000, quoted in Vom Brocke et al., 2009) to explain that by relevance they mean avoiding to re-investigate what is already known, and they use Hevner et al. (2004, quoted in Vom Brocke et al., 2009) to specify that rigour comes from the effective use of pre-existent knowledge.

Made easier by information technologies, the increasing quantity of scientific knowledge available to the community was responsible for even more demanding literature review processes (Best, Taylor, Manktelow & McQuilkin, 2014; Campbell, Taylor, Bates & O' Conner-Bones, 2018), which made the need to evaluate their quality more urgent – an issue actually not that new. Back in the 1980s, Cooper (1988) noticed an increase in the amount of reviews in the fields of Education and Psychology, which was precisely associated to the "information explosion" and increase in researchers in the area (p. 105). In the face of this new reality, the American researcher and psychologist showed his concern about the quality of the reviews and pointed out the need to evaluate them thoroughly, by proposing a taxonomy for categorising them, whose goal was to "distinguish superior from inferior works" (p. 105).

The main disadvantage concerning traditional literature reviews is related to the absence of a specific guiding method, something Carver et al. (2013) synthesize as follows: "lack of rigor may influence results or make the researcher omit relevant publications,

altering the nature of the findings" (p. 203). Although they admit conventional reviews may be valid and interesting, Petticrew and Roberts (2006) also call our attention to the possibility of this kind of review resulting in a "partial review of a convenience sample of the author's favorite studies" (p. 6).

On the contrary, by being formally planned and methodically applied (Staples & Niazi, 2007), systematic literature reviews (SLR) seem to tackle arbitrariness, so common in narrative reviews, more effectively. According to Ramalho (2005), SLR's main objective is to reduce any chances of bias, which is what you hope for in any research study anyway. The author stresses objectivity and reproducibility, cornerstones of scientific work, as some of the main features of this kind of studies. Petticrew and Roberts (2006) point out yet another advantage, which they think justifies their increasing popularity: "they provide a means of dealing with the information mountain, by allowing large amounts of research information to be distilled into a manageable form" (p.11).

Origins and limitations of SLRs

SLRs' development can usually be traced back to the early 1990s with the publication of "Evidence-based Medicine Working Group" (Boell & Cecez-Kecmanovic, 2015). This kind of study was, therefore, first used in Medicine in order to collect evidence and knowledge that could support choosing certain clinical procedures and adopting certain policies. Since then, many are the areas that have been advocating and benefitting from SLRs – such as Systems Engineering, Psychology, Nursing and Education. Regardless of the area they fit in, they seem to serve numerous purposes. This is a methodology used not only to get a broader view on a given research topic, but also to find evidence that meet specific research questions. In either case, the ultimate goal is to present a synthesis of earlier works.

Although their roots can be traced to Natural Sciences, there are several Social Sciences researchers who have conducted studies they intend to use to point out how SLRs can be applied to that particular field (Campbell et al., 2018; Faria & Faria, 2014; Victor, 2008).

Regardless of the discipline, all the papers that follow SLR procedures seem often over-enthusiastic about this research technique, frequently used without including researchers' critical assessment. We believe that whenever we choose to conduct a SLR it is important to also think about its limitations and everything lost when comparing to a narrative review, that is, a review that ignores strict and easily replicable criteria.

Boell and Cecez-Kecmanovic, in their paper "On being 'systematic' in literature reviews in IS" (2015), undertake a deep reflection on SLR, questioning many of its features and benefits. Following authors like Hammersley, Hjrland or Finfgeld-Connett and Johnson, they draw our attention to the fact that importing SLR from Medicine to other disciplines may result in an empiricist/positivist bias towards scientific knowledge. They

also stress the fact that using it could "undermine critical engagement with literature and what it means to be scholarly in academic work" (p. 161). Namely, they point out that the researcher's "interpretation, imagination, creativity and individuality in selecting and judging the studies and findings are to be minimized" (p. 165).

According to Boell and Cecez-Kecmanovic (2015), SLRs cannot replace narrative reviews but, still based on the Australian authors, they can be useful for a specific purpose: "a meta-analysis that identifies and summarizes evidence from earlier research" (p. 163). Petticrew and Roberts (2006) see SLRs as a research method suitable for answering specific questions. They argue that rather than providing a debate about literature, they are a scientific tool: a way to look at studies like you look at survey respondents – "the results from one respondent may say something (...) but it is more likely that one will learn more by examining data from other respondents, by looking at the range of answers, and examining why those answers vary, and by attempting to summarize them" (Petticrew & Roberts, 2006, p. 15). An idea in all similar to that of Tranfield, Denyer and Smart (2003, p. 209): "meta-analysis offers a statistical procedure for synthesizing findings in order to obtain overall reliability unavailable from any single study alone".

Reasons for conducting a SLR

Once we were confronted with the need to conduct a literature review in order to identify who studied the relationship between children and/or young people and the news, as well as when and where that happened, plus the research's favourite angle, the SLR proved to be the right choice, more so because there was no study alike. The goal was to achieve a global, "panoramic" vision of the proposed topic.

In the chapter "Views on the news", written in 2011, Hobbs, Cohn-Geltner and Landis began by pointing out that "few topics are more marginalized in the scholarly literature of mass communication, education and human development than the topic of children, current events and news" (p. 43). This is an idea shared by different authors (Buckingham, 1997; English, Barnes, Fynes-Clinton & Stewart, 2019; Hobbs, Cohn-Geltner & Landis, 2011). And yet there are studies that address this subject focusing mainly on reception, production and representation (Pereira, Fillol & Silveira, 2015).
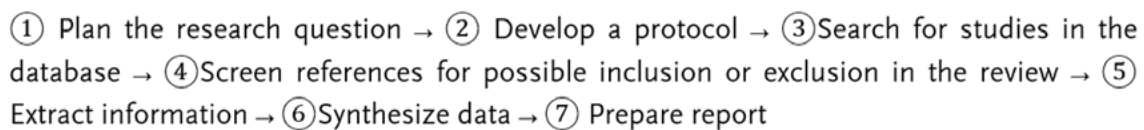
Even though saying that children are not interested whatsoever in the news is an old *cliché,* a few researchers suggested just the opposite (Carter & Allen, 2005; Silveira, 2019). Another study, focused on the relationship between British children and BBC's children's news service, *Newsround*, Carter, Messenger Davies, Allan and Mendes (2009) shows the role news may play on children's development as citizens, and that the fact they feel represented stimulates their interest on social issues.

The issues to be addressed in this SLR may be scientifically relevant for Communication Sciences because they can help create an overall picture of what research in this area has been like, by identifying the latest trends, the existing gaps, and what might help

fill them. Therefore, this kind of work may be of interest to researchers who study media, children and youth, as well as to journalism and education professionals.

Methodology

As mentioned earlier, a SLR should be formally planned and include several stages, each one of them with a sequence of steps (Staples & Niazi, 2007). All those moments should be set out according to a strict protocol that describes processes and methods to be used (Boell & Cecez-Kecmanovic, 2015; Petticrew & Roberts, 2006). This protocol should guarantee the alleged transparency, objectivity and possibility of replication of all the process. "Alleged" because, according to Boell and Cecez-Kecmanovic (2015), "SLRs mistake the 'objective procedures' of the process for the objectivity of the review's findings", which ultimately will depend on the subjectivity of its authors (p. 166). In this paper, the planning and analysis steps were adapted from the model suggested by Petticrew and Roberts (2006), authors of a practical guide on SLR in the Social Sciences, as shown on the figure below.

① Plan the research question → ② Develop a protocol → ③Search for studies in the database → ④Screen references for possible inclusion or exclusion in the review → ⑤ Extract information → ⑥Synthesize data → ⑦ Prepare report

Figure 1: Steps in conducting a systematic review (adapted from Petticrew & Roberts, 2006)

We were inspired by Luís Pereira's model (2011) to report the data extracted from the syntheses.

Research questions

Bearing in mind that SLR questions must be closed-ended and the answers must synthesize findings (Boell & Cecez-Kecmanovic, 2015), we have formulated the following research questions:

1. Who has addressed the relationship between children and/or young people and the news in scientific research, and when, where, and how?

    1.1. Which were the most explored and neglected angles?

    1.2. Are there trends associated to specific time periods?

    1.3. How has the interest on the subject been progressing according to the number of papers and topics?

    1.4. Which were the most studied age groups?

    1.5. Which were the most studied media (press, radio, television, written journalism)?

1.6. Which researchers have studied these questions the most?

1.7. Which countries study this topic the most?

1.8. How is the collaboration between researchers from different countries?

1.9. Which journals have published the most papers in the field?

1.10. Which keywords were used the most?

Selecting a database

As a rule, SLR proposes to identify any study that might be relevant to a specific question. However, it is possible to use an alternative when mapping a general topic. Petticrew and Roberts (2006) call it a "quick review". It is a somewhat restricted (to a country, a year, etc.) systematic review. In this case, the review was restricted to one database, the most directly related to Communication, the concerning area of study.

Communication Abstracts was chosen because it provides titles, abstracts and bibliographic data from papers included in 240 academic journals indexed in Communication, Mass Media and other fields of study closely connected to them. Previously produced by SAGE, this reference database is currently managed by EBSCO and provides more than 360 000 registers, which date back from 1978. Despite being aware that using just one database influences the results (Best et al., 2014; Boell & Cecez-Kecmanovic, 2015), we consider that, due to its scope and relevance, the data obtained through Communication Abstracts constitute an interesting enough sample to create an initial understanding of the studied topic.

Search formula and filters

Before conducting the research, we identified two sets of terms: 1) news; 2) children and young people. Regarding the second set, we have resorted to a symbol (asterisk) in order to research word variations, particularly plural forms. Boolean operators AND/OR were used to connect the sets; in order to obtain the best results, we also performed some tests with the help from a researcher at the University of Minho specialized in digital libraries. The goal was to find a comprehensive enough formula that could allow us to obtain the maximum of relevant results, without rejecting too many irrelevant ones, which usually happens when more search terms are added (Campbell et al., 2018). We used the following formula: "news AND child* OR adolesc* OR young* OR teen* OR youth*".

We chose "AB Abstract or Author-Supplied Abstract", having also refined it by resorting to the advanced search options. Results were restricted when it came to: *type of journal*, having chosen scientific journals (peer reviewed); *type of publication*, in this particular case "academic journals". There were no restrictions regarding the type of document because previous tests had shown that by selecting "articles", case studies

were automatically left out. Finally, we accepted results in five different languages: Spanish, French, English, Italian and Portuguese. There were no time restrictions since one of the research questions was about its progress over time. The research was conducted on 2nd December 2019, having obtained 777 results. In order to be able to establish a comparison, we have replicated it (having used the same terms and the same filters because searching through different databases does not guarantee the exact same possibilities) in the following scientific platforms.

Platforms	Number of References
B-On	2189
Eric	156
Google Scholar	3480
Scopus	2189

Table 1: Occurrence of search terms in different databases

As you can see, except for the Education-oriented database, ERIC, all the rest present a much higher number of results, whose analysis would require a higher amount of time.

Including and excluding papers

Regarding the references obtained through Communication Abstracts, the following step was to read all the titles and abstracts regarding the 777 papers as to choose those that corresponded to the inclusion criteria. Following Petersen and Ali's example (2011), we tried to establish clear, objective and easy to check criteria, and with no need for interpretation. We realised that, in order to check if some paper met the required criteria, we should resort to questions. For the sake of greater transparency, which according to Vom Brocke et al. (2009) ought to be guaranteed so the readers can make a better assessment of the review, we chose to specify a few exclusion situations that were likely to raise some doubts while replicating this work[1].

We hereby present the protocol we used to include or exclude the references found.

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[1] Just as the papers on SLR had cautioned us, in this study we also had to adjust inclusion and exclusion criteria along the selection process, because, as Staples & Niazi (2007) pointed out, researchers learn more about the topic by reading the papers, which allows them to improve early selection criteria.

Include if the answer to the following questions is yes:

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1.   Is the paper focused on the relationship between the news and children or youth?
2.   Is the paper only about news or news-related media?
3.   Are the youth under 20 and does the sample include children and young people under 18?*

(*) On this issue, include if the answer is "no", provided that it concerns one of the following:
1.   young people are over 20, but the paper focused on their relationship
     with the news when they were children or teenagers;
2.   the article considers answers from adults, provided they fall into these two categories:
     2.1. parents or educators who take on the role of mediators of the relationship of their children with the news;
     2.2. parents or educators who talk about the experience and habits of their underage children.

Exclude if:

---

1.   media coverage on children is used to study something else, for instance, the condi-
     tions and practices responsible for conspiracy theories to be mentioned in the news;
2.   children/youth relationship with the news is mentioned in a context that addresses other age groups;
3.   the way media covered some news about youth is analysed, but those in question are not news media;
4.   the news result from a study that did not consider them a key element (for instance, the-
     re is a study on young people's use of social networks and the news just 'pop up');
5.   the focus is adult behaviour, like paedophilia, child abductions, China's
     one child policy, gay parents, mothers who kill their children;
6.   the news are a study variable among many analysed (eg. news and enter-
     tainment shows; use of media by young people in general);
7.   the paper is focused on how an institution involving young people is represented in the press, but
     the purpose of the study is the relationship between institutional and media communication.

Table 2: Protocol used to include or exclude the references found

The process of selecting papers is probably the most demanding and time consuming task in a SLR. To make it easier, we chose to carry this out step by step.

First, we read all the abstracts, having excluded those which clearly did not meet the criteria, and having chosen those which did not leave any room for doubt. During this process, we found out that there were double references (the same paper published in more than one language or duplicate). For these twelve cases, one version was kept while another was excluded, in total of six papers.

There were also references that did not match any papers and were, thus, excluded, like editorials or indexes. Therefore, we eliminated 36 references, having kept 741 from the original 777.

As a second step, we read the abstracts of the papers whose selection was not evident. There were several cases in which abstracts did not translate into the data needed to conclude that they met the inclusion criteria. Most times this was related to the age of the subjects, which was not specified. This meant reading the full text and, sometimes, even writing to the authors. After clearing up all the doubts, we concluded the inclusion/exclusion process, having obtained 158 results. However, having already been alerted by Staples and Niazi (2007), who during a SLR identified papers, written by the same authors and that reported the same results, only slightly diverging in structure, we made an effort to compare the ones that shared authorship. This process resulted in the exclusion

of twelve more papers. Once we finished this, we ended up with the 146 papers that constitute the sample.
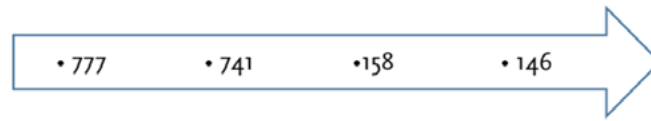
Figure 2: Progress of the number of papers that constitute the sample after all the selection steps

In the following table we find the information obtained from each abstract.

ABOUT THE PAPERS	- Year of publication - Name of journal - Subject area
ABOUT THE AUTHORS	- Name - Affiliation: nationality - Papers signed by several authors from different countries
ABOUT THE STUDIES	- Target audience - Media studied - Type of study - Methodology used

Table 3: Illustration of the kind of information to obtain from the abstracts

Analysis of results

Evolution of the number of published papers

Graph 1 depicts the evolution of the number of papers published over the years (1978-2019). Until 2003, the number of publications was very low, ranging from none to three. Between 2004 and 2016, the number of publications, even if oscillating, increased slightly to almost half a dozen per year, except for 2011 – when that number surpasses the dozen for the first time, reaching a total of 11 papers. This would only happen again six years later, in 2017 and in 2019, with a minor drop in 2018. In the past five years, there was a more solid increase in the numbers, always above seven papers per year. This recent increase in numbers could mean more attention from researchers regarding this topic, which may also be a consequence of concerns with *fake news* and the post-truth concept. As mentioned above, the increase in numbers after 2004 may result from the fact that information technologies made publishing scientific papers look easier[2].

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[2] Communication Abstracts website has got no information on the evolution of the number of papers made available in the database over the years, which would allow us to establish terms of comparison with the graph presented here.
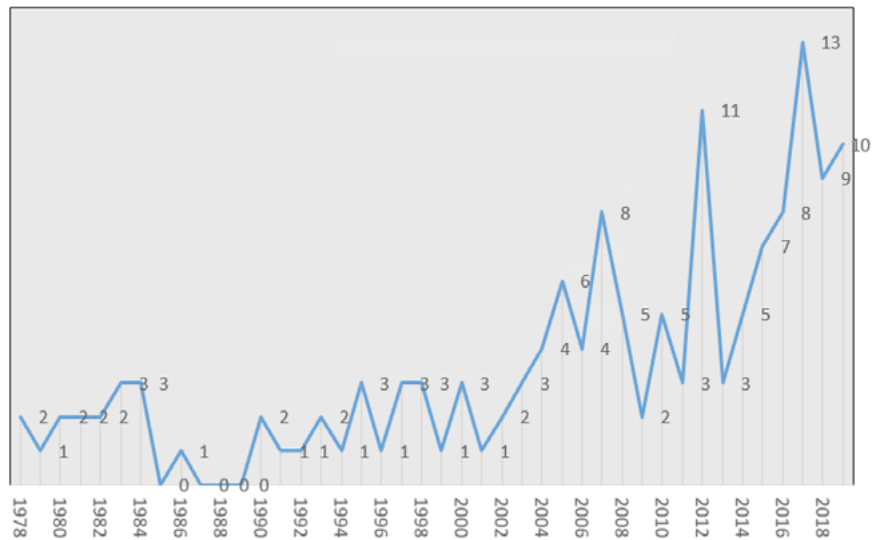
Graph 1: Evolution of the number of published papers per year (1978-2019)

Published papers per scientific journal

The following table shows the journals with greater number of papers about children, young people and news, which might be a useful piece of information, namely if you wish to know where to find earlier research on the subject and a relevant platform where to promote the produced work.

Scientific journals	Periodicity	%
Journal of Children & Media	15	10,2
Communication Research	10	6,9
Journalism Studies	8	5,5
Journalism Quarterly	6	4,1
Journalism	5	3,4
Communication Research Reports	4	2,7
Journal of Health Communication	4	2,7
Journalism & Mass Communication Quarterly	4	2,7
Journal of Broadcasting & Electronic Media	3	2,1
Journal of Educational Media	3	2,1
Mass Communication & Society	3	2,1
Newspaper Research Journal	3	2,1

Table 4: Scientific journals with greater number of published papers on the studied topic

The 146 papers in the sample are distributed among 70 publications. This illustrates the dispersion of papers and reinforces the relevance and usefulness of digital databases which allow researchers to have access to works they are interested in. According to the table above, there are 12 journals with three or more publications that include 68 papers, which amount to 46.3% of the total. The remaining 68 (53.7%) appear in journals with just one or two publications. It should be noted that five of the journals hold 30% of the references.

In first place comes *Journal of Children and Media*, founded in 2007 and currently published by Taylor & Francis Online, which is perfectly understandable since it is an interdisciplinary publication devoted to debating the presence of media in the lives of children and teenagers, focusing in three complementary topics: children as media consumers, representations of children in the media, and media organizations/productions for or from children. The journal, peer reviewed and published bi-monthly, collects theoretical and empirical studies by authors worldwide. As you can verify at the website[3], it aims to be an international forum about the above mentioned issues, either in local or national/global contexts.

Communication Research, which takes second place, has existed for 45 years and is published by SAGE Publishing. Similarly to *Journal of Children and Media*, it was created in the United States, but it offers you a more comprehensive coverage since it encompasses Communication Studies in whole, publishing papers that, according to its website, "explore the processes, antecedents and consequences of communication in a broad range of societal systems"[4].

While analysing the publications, it came as no surprise to us that scientific journals about Journalism, Communication and *Media* were in greater number, but it was curious to observe that seven of them had Education as their main focus.

Angles of approach to research

One of this SLR's main research questions was to figure out, from reading the abstracts, which were the most studied views on the relationship between the news and children or youth. Therefore, papers were firstly grouped by three traditional categories: reception studies and effects; production studies; and representation studies. Other three categories came out of the analysis on titles and abstracts: impact of news in political participation or socialization; impact of parental mediation; and journalists' ethical concerns when covering news that involve children. The 146 papers were, then, subdivided into the six categories[5], whose inclusion criteria are specified in the following table.

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[3] See https://www.tandfonline.com/toc/rchm20/current

[4] Retrieved from https://journals.sagepub.com/home/crx

[5] Whenever the paper could be listed in more than one category, we chose the dominant one. Regarding the "journalists' ethical concerns" category, it should be noted that the scientific papers found are about journalists' ethical concerns and not about ethical concerns raised by researchers as a result of the news coverage.

CATEGORY	DESCRIPTION
Representation	How the media portray topics related to children or young people (sexuality, crime, autism, teenage sex...), in general or in particular (Malala Yousafzai, for instance).
Impact of the news in political participation or socialization	Relationship between reading the news and citizen/political/environmental participation or political socialization of children or young people.
Impact of parental mediation	In case there is mediation, how it is done; how it affects young people's interest on the news.
Reception and Effects	How children or young people consume and/or receive the news; their level of literacy regarding the news, their critical thinking towards them or ability to assess their credibility; how a specific kind of news can affect children and youth.
Production	Studies on the production of children or youth-directed news or how they can draw their attention. A few papers about the news produced by children or young people were also added.
Journalists' ethical concerns	Coverage of news involving children; how journalists treat children when covering events somehow related to them.

Table 5: Definition of the different categories

The distribution by categories of the sample is as follows.
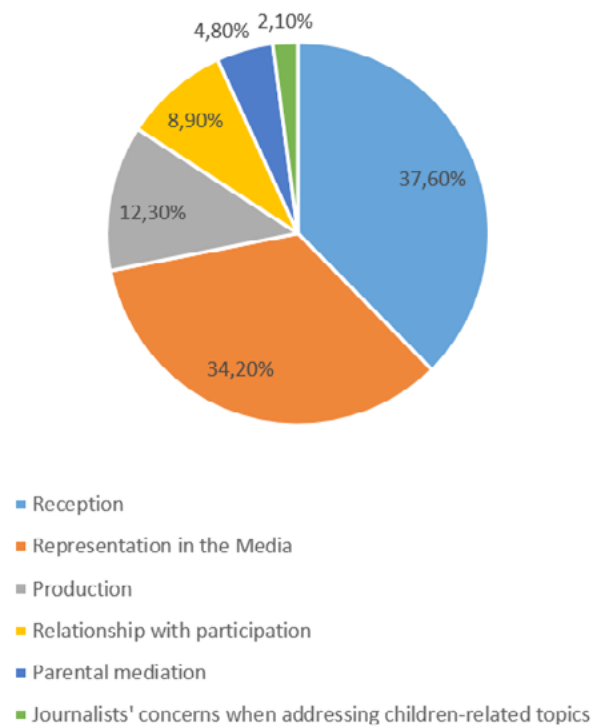
Graph 2: Distribution of the sample by different categories

As can be inferred from the graph, there are two major approaches to research in this area: reception studies (represent 37.6% total, and amount to 55 papers); not far from the first one, studies about media coverage of certain events related to children and youth (34.2% which correspond to 50 papers). Together, these approaches represent

more than two thirds of the whole sample (71.8%); therefore they are the categories which raise greater interest from researchers.

Either one of them, though, deserves a closer look.

Reception studies are present during the studied period (1979-2019).

A little over one fifth (21.3%) tried to understand how young people received and dealt with sad or violent news, which showed that researchers were somewhat concerned about potential effects. There were 11 papers included in this subcategory, a very close number to the one of the category on the impact in political participation and socialisation (13). According to these two sets of papers, there is yet another comparison to be made: studies focused on effects were distributed in time, between 1993 and 2019. Studies on the impact of the news in young people's participation focus on two particular moments, separated by three decades: there are records of papers between 1981 and 1984, which will only resurface between 2014 and 2019.

With regard to the 50 papers in the *representation* category, most of the topics (32) that motivated this kind of research concerns negative events, such as wars, child abductions, youth violence or crime, abuse. Six of the papers focus on the relationship between children and the internet, four of which address problems like *cyberbullying*, *sexting* or online risks. There are eight papers about health issues (mainly conditions) such as obesity, cancer in children or autism. The fact that research focus on negative events seems to show that the media are able to set an agenda, even for those who study them, since even the press tends to choose negative images when addressing the younger population; and this also applies to Portugal (Brites, 2013; Ponte, 2009).

Still in the representation category, researchers' concern with more vulnerable groups is quite evident: four of the papers are about immigrant or refugee children, other four about ethnic minorities. Youth living in the suburbs, multicultural or transgender children have also been object of investigation, as well as star-children (Malala Yousafzai or the protagonists of the film *Slumdog Millionaire*, 2008). Looking at the time frame when these papers were produced, it is clear that representation studies only became a trend in this research area from the late 1990s onwards. All the papers, except for one, were written between 1998 and 2019.

Getting back to the graph, the other four categories correspond to more than one fourth of the sample: 28.1% (41 papers).

The largest share focuses on the *production of news for and from children and young people* (12.3% which correspond to 18 papers). Only one piece is about school journalism: most of the reviews (67%) concern newspapers or television news targeted at childhood or youth in different parts of the world; BBC's *Newsround* is reviewed in more than one paper.

After the already mentioned publications about the *impact of the news on participation and socialisation* (8.9%, 13 papers), and raising little interest from the academy, is the review on parental mediation (4.8%, seven papers) and on the ethical concerns of

journalists regarding the way children and youth are treated in the news (2.1%, three papers).

Meta-analysis on the authors

Another research question aimed at identifying the researchers with the greater number of works published on this subject, in order to find bibliography that might have been missed by this SLR, as well as contacts of potential research partners. In order to do so, we followed a scoring system, since comparing the number of papers, while disregarding the fact that they were first or second (or more) authors, did not seem rigorous enough[6].

Even if the United States is, by far, the country with the greater number of papers published, European researchers are also very well represented, with a slight difference in favour of the Americans (nine to seven authors).

Table 6 shows that, even if the authors in the first two places are men, women are clearly the majority. Dafna Lemish pointed that out while examining her 13 years' experience as an editor of *Journal of Children and Media*: studies on children and media were still led by women, which did not come as a surprise to her "as long as the private sphere of family and the wellbeing of children, their education, and literacy are all perceived as women's territory – whether within individual households, public institutions, or scholarly field" (Lemish, 2019, p. 120).

The researcher who obtained the most points is Swedish. Adam Shehata is an Associate Professor at the Department of Journalism, Media and Communication of the University of Gothenburg and signed four papers, three of which as first author. In this individual ranking, the following are two American authors who have written three papers each as first authors: Charles Atkin was a Professor in the Department of Communication at the University of Wisconsin, over which he presided; Regina Marchi, Associate Professor of Journalism and Media Studies at Rutgers School of Communication and Information, in New Jersey, studies the intersection of media, culture and politics focusing on marginalised populations, including children – in 2017 she was a co-author of the book *Young people and the future of news: social media and the rise of connective journalism*, by Cambridge University Press.

Next, with five points each, are three Dutch scholars: Moniek Buijzen and Mariska Kleemans, both from the University of Radboud (which, similarly to the University of Amsterdam, has got a considerable number of researchers who contribute as authors or co-authors for this sample – Radboud nine and Amsterdam eight); and Juliette Walma Van Der Molen, from the University of Twent. Out of the three, the one that seems to focus more on the subject is Kleemans, whose research aims to investigate how the

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[6] We chose to give each researcher two points per paper in case they were the main authors and one point if they were co-authors. This way, for instance, two authors with two papers published, one of them with two papers as first author and the other one with two papers as co-author, would never score the same.

relationship between children and the news can be improved: "how can we get children more involved with the news and how can the news prepare them for their role in society"[7]. Kleemans is also concerned about the way negative news are presented to children. Buijzen's work is more focused on using Communication's scientific knowledge to improve young people's well-being. Van Der Molen studies how young people learn through different media in greater depth.[8]

Name	Country	Number of points	Number of papers
Shehata, Adam	Sweden	7	4
Atkin, Charles K.	USA	6	3
Marchi, Regina	USA	6	3
Buijzen, Moniek	The Netherlands	5	4
Kleemans, Mariska	The Netherlands	5	3
Van Der Molen, Juliette Walma	The Netherlands	5	3
Cairns, E.	Northern Ireland	4	2
Drew, Dan G.	USA	4	2
Edgerly, Stephanie	USA	4	2
Mathews, Julian	England	4	2
Moeller, Judith	The Netherlands	4	2
Riddle, Karyn	USA	4	2
Smith, Stacy L.	USA	4	2
Wanta, Wayne	USA	4	2
Wilson, Barbara J.	USA	4	3
Worthington, Nancy	USA	4	2
Unaffiliated	-	-	2

Table 6: List of authors with the greater number of published papers

If we pay attention to the countries with the greater number of papers published (according to the first author's nationality), the United States stand out with half the total. Next are the Netherlands, with 9.6%, and England, with 6.8%. When you add the number of papers whose first author is European, the percentage still falls short of the numbers achieved by American authors (31.5%). An invitation to reflection is the fact that the 24 countries list (22 if we only count first authors) includes territories marked by violence (internal or with neighbouring countries) or by strong repression. Among these are Israel, Palestine, Northern Ireland, South Korea, Turkey, Chile, Romania and Taiwan, which represent a third of the countries. Between 1978 and 1991 (included), the

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[7] Retrieved from https://www.ru.nl/english/people/kleemans-m/

[8] Two of the authors who signed papers found in the present SLR were unaffiliated and we could not even find out their nationality by searching their names on the internet.

19 papers on the subject published and collected in Communication Abstracts database are from authors originally from the USA (14), Israel (três) and Northern Ireland (dois).

Countries	Number of papers (1ˢᵗ author)	%
USA	73	50
The Netherlands	14	9,6
England	10	6,8
Australia	6	4,1
Belgium	6	4,1
Sweden	6	4,1
Israel	5	3,4
Canada	4	2,7
Northern Ireland	3	2,1
Unaffiliated	2	1,4

Table 6: List of nationalities (affiliation) of first authors

Regarding the authors, another goal was to learn if researchers from different countries have been cooperating, and if national realities have been compared. It was concluded that few are the works which intersect more than one reality or have the contribution of authors from different geographical and cultural contexts. There were seven papers written by authors from different countries (six pair up authors from two countries; one pairs up authors from three countries). There are, still, nine papers which focus on realities from different countries (Brazil and Sweden; South Korea and the Netherlands; India and the international reality; Turkey, Morocco and Flanders; Italy, Portugal and Spain; London and New York; USA, United Kingdom, Qatar and Jerusalem; 14 European countries) and one paper that compares Jews and Arabs in Israel. As Barnhurst (2000) points out, "comparing groups reared under a greatly differing news arena permits a search for common patterns", hence to understand, for instance, if there is a generational factor that crosses cultural or national boundaries. On the other hand, and according to the same author, differences may indicate different contexts, with "alternative policy choices", that should somehow be assessed. One way or the other, the comparison allows us to build grounded theory.

Regarding nationalities, it is observed that some countries have a greater interest in certain research areas. That is quite evident in the case of Sweden where four of the six papers are included in the category about the impact of the news on political participation and socialisation. From the 10 papers whose first author is British, three of them (30%) fit the production category, which must certainly be related to the fact that the British public service broadcaster, BBC, produces the oldest children-oriented television news, *Newsround*.

Meta-analysis on the papers

Regarding the works published, we learned that the attention given to children and young people is quite levelled: 68 papers focused on the first, and 67 on the latter. Eight of the papers focused on both indistinctly, and three focused on babies/toddlers (representation studies). In the case of the abstracts that mentioned age, the chosen children were aged between 5 and 13, and teenagers between 12 and 19. We could also observe that the papers about the impact of the news on political participation or socialisation focused mainly on young people, and research on the reaction to negative news focused on children instead.

Table 8 shows the results of reviews focused on the media studied.

Medium or media	Papers	%
No specific *medium*: journalism and news in general	49	33,6
Television	45	30,8
Newspapers	31	21,2
Online news	8	5,5
Television, radio and written press	4	2,7
Traditional and online press	3	2,1
Magazines	2	1,4
Television and newspapers	2	1,4
Radio	1	0,7
Television and radio	1	0,7

Table 8: Most studied *medium* or group of media

As you can see in Table 8, most of the papers were not about a specific *medium*, they rather addressed news in general. Among those which focused on one *medium*, television was the one that most drew the attention of researchers; it was followed by newspapers. There was only one paper solely dedicated to the radio. The digital medium is starting to attract some attention. The first paper to mention children's online news dates back from 2010, which slightly corresponds to the period in which the number of studies on television started to drop.

When it comes to the methodologies used, we were not able to come up with a statistical analysis because not all of the abstracts provided clear information about it. However, we could conclude that most papers were based on empirical studies, which serve as qualitative as well as quantitative methodologies. We identified a sole study based on intervention, and theory-based papers did not exceed half a dozen.

Finally, and following Ramos, Faria and Faria's example (2014), we created a cloud of words by importing all the keywords indicated by the authors of the various papers

into WordClouds[9] (48 authors did not provide any keywords, reason why the cloud was created based on the ones provided by the authors of 98 papers)[10].

Figure 3 shows us that the keywords we used for research were adequate and that the cloud, in its whole, portrays some of the results achieved in this study. Apart from the attention paid to the words related to research (news and children and/or young people), a few other words, which identify the categories found through a review of the abstracts, were also highlighted: reception/effects (*audience, effects*); representation and production (*analysis, content, discourse, framing*); impact of parental mediation (*mediation*); impact of political participation or socialisation (*political, social, socialisation*); journalists' ethical concerns (*ethics*). Thanks to this tool the results may help the keywords identify the research done in this field.

Figure 3: Map of keyword frequency

Final considerations

Systematic literature review turned out to be an adequate tool for mapping and conducting a meta-analysis of the existing work on the relationship between children and/or young people and the news. We would hardly have obtained the overview we wished for by using a conventional review. However, we consider that both reviews have

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[9] See https://www.wordclouds.com/

[10] The uppercase letters in the keywords were replaced by lowercase letters so that they come up only once in the cloud, otherwise the program will assume they are different words, hence generating two entries and misleading us about their exact number.

to be seen as complementary rather than alternative, namely in the Social Sciences field; otherwise, research could be subjected to a positivist bias. SLR was an important first step into carrying out an integral and critical reading of papers and, through them, other studies and authors.

The fact that the review was limited to one database determines which relevant studies on the subject will not be part of this sample; furthermore, it is focused on Communication and may not contemplate reviews from other fields. Also, the fact that most of the journals on Communication Abstracts are Anglo-Saxon limits the number of references available; that is why it will be important to broaden any future reviews to databases that provide scientific production in different languages, namely Portuguese. The kind of research that uses these databases also conditions the access to documental sources as important as books. Bearing these limitations in mind, we consider that this was in fact important work through which we were able to identify major areas of study – reception and representation – and neglected ones – production, impacts on participation, parental mediation and journalists' ethical concerns; moments when the topic received more attention, from 2011 until the present day; and the journals which featured it, mainly *Journal of Children and Media*. We could tell that, although the United States presented half the papers published, the list of authors who devoted themselves to the subject shows some balance between Americans and Europeans, and that the topic is of particular interest to women researchers. Most of the papers address news in general. Whenever studies were focused on a single *medium*, television was on top of the list, and from 2010 onwards studies on television started decreasing, and online seemed to capture researchers' attention. Regarding the targets, there was a balance between the number of studies focused only on children or only on youth. Geographically speaking, very little studies crossed over different realities; and a third of the countries with works published in this area corresponded to territories marked by violence or a recent history of totalitarian regimes.

To finish how we started, this SLR kept us from meeting the "giant" we alluded to in the beginning, but hinted some contours. The next step in the research is to really get to know him.

Translation: Helena Antunes

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Sociological analysis of Montenegrin teachers' digital capital

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Abstract

Starting with the concept of digital capital in social sciences, this article presents the key findings of the "Global Kids Online" nationally representative survey of primary and high school teachers' digital skills and practices that was conducted in Montenegro with Unicef's support in 2018. Digital capital, as any other form of capital within Bourdieu's perspective, has a sociological validity only in correlation with other forms of capital – such as economic, cultural and social – in a limited context and according to a multi-dimensional approach which goes from a macro- to a micro-social perspective (Pandolfini, 2016). This article identifies and discusses three perspectives of digital capital – macro, meso-social and micro – and their material (technologies, digital services and school experiments with devices) and non-material resources (digital competencies). Analysis of data from the Montenegrin research relating to this perspective shows that the daily practice of using digital technology in classrooms seems to be marginal, even though most teachers have access to the internet in their schools. Currently the majority of teachers are using the internet at school mostly just for checking information online. Their digital competencies are not generally advanced: on average, social and operational skills are the most developed, while their creative skills are least developed. Therefore, to support the development of children's media literacy through formal education, further investments towards the strengthening of teachers' digital competencies need to be made and the research shows that the demand for digital pedagogy courses already exists among most teachers. In other words, the Montenegrin research points to the need to invest more in education and experimentation related to the meso- and micro-social perspectives of digital capital.

Keywords

digital capital; digital competencies; media literacy; Montenegro; teachers

Análise sociológica do capital digital dos professores montenegrinos

Resumo

Partindo do conceito de capital digital nas Ciências Sociais, este artigo apresenta as principais conclusões do inquérito nacionalmente representativo do "Global Kids Online" sobre as competências e práticas digitais de professores do ensino básico e secundário, realizado em Montenegro com o apoio da Unicef, em 2018. O capital digital, como qualquer outra forma de capital na perspetiva de Bourdieu, apenas tem validade sociológica em correlação com outras formas de capital, como a económica, cultural e social, num contexto limitado e de acordo com

uma abordagem multidimensional que vai de uma perspetiva macro a uma microssocial (Pandolfini, 2016). Este artigo identifica e discute três perspetivas do capital digital – macro, meso e micro social – e os seus recursos materiais (tecnologias, serviços digitais e experiências escolares com dispositivos) e não materiais (competências digitais). A análise dos dados do estudo montenegrino, de acordo com esta perspetiva, mostra que a prática diária de utilização da tecnologia digital nas salas de aula parece ser marginal, embora a maioria dos professores tenha acesso à internet nas escolas. Atualmente, a maioria dos professores utiliza a internet na escola principalmente para verificar informação online. Geralmente, as suas competências digitais não são avançadas: em média, as competências sociais e operacionais são as mais desenvolvidas, enquanto as competências criativas estão menos desenvolvidas. Portanto, para apoiar o desenvolvimento da literacia mediática nas crianças através da educação formal, é necessário realizar mais investimentos para reforçar as competências digitais dos professores. O estudo mostra ainda que a procura por cursos de pedagogia digital já existe entre a maioria dos professores. Por outras palavras, o estudo montenegrino aponta para a necessidade de investir mais na educação e na experimentação associadas às perspetivas meso e microssocial do capital digital.

Introduction

This article presents a reflection on the concept of digital capital in Social Sciences according to Bourdieu's perspective (1986). The results of a national survey on the use of digital technologies in classrooms and on the digital competencies of primary and secondary school teachers in Montenegro are analysed and interpreted within this perspective.

Digital capital can be meant as a set of internal, non-material resources (digital competencies) and external ones (technologies) which are accumulated and transferred from one area to another (Ragnedda, 2018; Ragnedda, Ruiu & Addeo, 2019). This concept can be reduced to a form of *specific capital* (Bourdieu, 1986). It can be understood as a series of material (technologies, digital services and school experiments with devices) or non-material resources (digital competencies) which are available in a specific area (or social space), such as a school, and which one (a teacher, student, administrative staff, school principal, etc.) can use to achieve specific objectives.

Digital capital, as any other form of capital within Bourdieu's perspective, has a sociological validity only in correlation with other forms of capital – such as economic, cultural and social capital – in a limited context and according to a multi-dimensional approach which goes from a macro- to a micro-social perspective (Pandolfini, 2016).

In this way, from the *macro perspective*, the indicators of digital capital to be considered are related to two dimensions. The first one is material. It is related to the technological infrastructure of a school and the availability of digital resources for implementing digital education activities from the digital literacy curriculum perspective (Pandolfini, 2016). The second one is non-material. It is related to investments towards the strengthening of the digital competencies of different school actors through educational projects or didactic experimentation.

From the *meso-social perspective*, digital capital indicators refer to the use of technologies in the classroom for planning lessons, managing classroom activities, relationship dynamics within and outside the school (students, families, other schools, administrative staff, stakeholders, etc.) and the organizational dynamics and improvements of the administration management (Pandolfini, 2016).

Finally, the *micro level* of digital capital refers both to the cultural practices of school actors related to the use of different devices and to the cultural capital of each one of them in terms of the digital competencies that they have acquired during their educational experiences and the everyday working practices for improving their performance and their socio-cultural and educational achievements individually (Magaudda, 2014; Paino & Renzulli, 2012; Pitzalis, 2016).

Digital capital: concepts and background

Starting with its introduction, in the *macro perspective*, a school's digital capital is certainly connected to its financial capital. The school's technological infrastructure and the strengthening of its digital education projects depend on the investments and finances available to the school to improve its digital capital. This often happens through networking with external agencies (public and private) to improve the socio-material wellbeing of the school (Landri & Viteritti, 2016; Pitzalis, 2016; Selwyn, 2011).

Digital capital then becomes closely linked to social and cultural capital, as the school's financial capacities to invest in digital technologies can be proportional to the *governance*, and thus, to the school's capacity to attract financial investments and make agreements with external entities to improve the functioning of the school. It also includes the school's medium-term investment in training and class experimentation projects with digital technologies aimed at improving the school's performance.

From the *meso perspective*, digital capital refers to the concept of didactic innovation and requires an educational approach mostly based on the development of competencies, learning by doing, and on a focus on the educational context during experimentation. OECD defines didactic innovation as any dynamic change in the teaching process capable of providing an added value to students' learning which can be measured in terms of the level of satisfaction of stakeholders and of school performance of the students (OECD, 2010). In particular, the EU identifies four principal points around which didactic innovation with the use of technologies is to be measured: 1) a political context favourable to the integration of technology and correlated to the changes and international decisions in terms of digital education, digital literacy and digital competencies; 2) pedagogical updating, in relation to teaching methods and strategies which use technology effectively to support students' learning; 3) updating of technology; 4) the knowledge and digital competencies which need to accompany the integration and use of technologies in different contexts, such as the classroom context (Pandolfini, 2016).

From this point of view, the concept of "didactic innovation" is introduced, in order to go further than the mere digital/technological perspective, so as to include an

educational approach based mostly on the development of soft competencies (connected to the methodological and didactic fields), learning by doing and experimenting with new things in the educational context. The fact that this process is often unpredictable means that the school needs to be flexible and to continuously adapt its educational strategies and didactic tools to the specific learning contexts. Hence, according to Ferrari (2017), the key challenges to didactic innovation can be reduced to a minimum of three: 1) limited methodological preparation of teachers; 2) limited implementation of active didactics, not necessarily digital; 3) tensions between the requests for innovation coming from ministerial decrees and the needs and realities of schools, as well as psychological resistance from certain teachers and school managers to innovation.

According to the *micro vision*, digital capital Magaudda, 2014; Paino & Renzulli, 2012; Pitzalis, 2016) consists of the digital competencies and practices of teachers, students, administrative staff and school management within the school context. From the micro-social perspective, if we look at this according to the EU's digital competence framework for educators (DigCompEdu 2017) (Redecker & Punie, 2017) framework and its updated versions (Digcomp 2.0 from 2015, Digcomp 2.1 from 2017) (Carretero, Vuorikari & Punie, 2017; Vuorikari, Punie, Carratero & Van den Brande, 2016), we need to take into account the following key areas of teachers' digital competencies: 1) access to digital technology; 2) a critical attitude towards the media (linked to the information and data analysis indicator of Digcomp); 3) creative production (linked to the digital content creation of Digcomp); 4) problem solving with the use of digital technology (linked to the problem-solving indicator of Digcomp); 5) digital awareness (linked to the safety indicator of Digcomp); and 6) citizenship (linked to the communication and collaboration indicator of Digcomp) (Ferrari, 2013).

In this case as well, the specific dimension of digital capital is reduced to the human capital of the actors. It refers to the cultural characteristics and knowledge (capabilities, internal and fundamental) (Nussbaum, 2010) to which individuals refer when using digital technologies and which contribute to defining the type and level of teachers' digital competencies.

These competencies can be identified as socio-emotional, socio-relational and metacognitive. They are at the basis of the socialization process regardless of one's digital experience. However, digital experience influences this process by increasing or reducing socialization within specific social and relational contexts.

In all three perspectives of the analysis of digital capital (macro, meso and micro), teachers' digital competencies, both notional and transversal – those related to the cultural background (acquired before and outside of the working context of the teacher) or to the relational background (acquired formally or informally within the teaching experience) – become essential for ensuring diffusion of the digital culture into the school's socialization processes. This happens not only in terms of strengthening the students' learning processes (cognitive and metacognitive), but also in terms of supporting the students to become aware and responsible users of digital media and to apply critical assessment to all content shared in virtual environments.

In 2018, the European Commission provided guidelines on *Teaching media literacy in Europe: evidence of effective practices in primary and secondary education* and invited all educational systems in different EU member countries to review the curricula (McDougall, Zezulkova, van Driel & Sternadel, 2018). This review should be based on the *Council recommendation on key competences for lifelong learning* from 22 May 2018 (Recommendation 2018/C 189/01). Digital competency is included in this document as one of the basic competencies, together with reading, writing and basic mathematics skills (Giancola & Viteritti, 2019, pp.11-40).

Therefore, it is not possible to speak about the realization of digital capital in schools without investment in the curriculum for students' digital education, as well as for teachers' education on digital literacy. In this way, teachers acquire new transversal, digital competencies which facilitate their communication and relationships with students and colleagues, and open them up to new interpretations of the social reality around them.

In this regard, it is useful to have in mind Unesco's proposal for a curriculum of Media and Information Literacy (MIL) (Unesco, 2008, quoted in Grizzle et al., 2013), which aims at providing guidelines to teachers for construction of a transversal media literacy curriculum for adults and young people. This process includes defining the objectives, contents, activities and didactic practices, as well as the assessment criteria of the learning processes. The curriculum proposal from Unesco is structured according to three key thematic areas: 1) media knowledge and understanding; 2) assessment of media content and of sources of information; and 3) the production and use of media with critical awareness. Unesco's curriculum goes beyond the issue of teachers' access to communication technologies to include the development of transversal competencies, such as critical analysis and problem solving (in the second area of MIL – knowledge deepening), as well as planning and multimedia production and self-regulation in the use of media in different social contexts (in the third area of MIL – knowledge creation).

When defined in this way, digital capital corresponds to Bourdieu's (1986) criteria of accumulation: the autonomous and responsible use of technologies and the development of digital competencies inevitably require continuous, educational and practical investment in the subject and in the school which needs to integrate media into the educational process.

Digital capital fulfils the criterion of transferability, since the material and non-material resources which characterize it are contextualized and applied in other social contexts outside the school, based mostly on the use of technologies and transversal digital competencies. Digital capital also satisfies the criterion of conversion, as the school technological infrastructure and the digital, cultural practices can transform with time into the improvement of the school management (macro-social capital). This can lead to further and greater economic investment in the school by different entities (financial capital), an increase in the opportunities for didactic innovations (by using meso-social capital), as well as to a rise in the number of students who want to attend such a digitally, advanced school.

Through the process of school digitalization, a chain mechanism is initiated: it starts from the provision of the technological infrastructure (macro prospective) and

ends with the usage of students' digital competencies (micro prospective). This mechanism engages all the actors of the school system which are directly or indirectly involved in the process of digitalization with the aim of ensuring the good digital performance of the school.

The challenges to digitalization can be many and various: the difficulty of the school in attracting financial investment and participating in the schools' network to strengthen its use of technologies; the gap between the technologies, which are often made available in the school and the lack of teachers' training for access and effective use of educational innovations. These training sessions are often sporadic or not inclusive. These initial problems, of a macro-social type, are reflected at the meso-social level by making it more difficult to invest in didactic and methodological innovations with digital technologies in classroom. In fact, the process of digitalization in contemporary society seems not be so much about the possession of technology, or lack thereof, and the piloting or not of a project any more, but more about being technologically advanced in line with the ongoing digital revolution, disseminating technology collectively and having all classes and all actors participating in the educational socialization included in the training.

We need to add to this the complex issue of investment in teachers' digital literacy, not only in terms of access to technology, but also in terms of the implementation of digital soft skills (Cortoni & Lo Presti, 2018). The aim would be didactic-methodological innovation and the organization of didactic activities in the classroom to support students' learning processes. Also, the aim would be to spread a digital communication culture so that it becomes central to the processes of socialization of young generations and acquires a symbolic identity function for educators. This culture would change the behaviours, perceptions and key individual and social identification processes through the use of communication tools, languages and environments (Cortoni, in press).

Objectives and methodology

The data in this article comes from the Unicef – supported research conducted in 2018 among primary and secondary school teachers in Montenegro within the "Global Kids Online" research network developed by the Unicef Office of Research – Innocenti, in collaboration with the London School of Economics and Political Science. The objective of the research was to learn about teachers' digital knowledge and skills, and their experiences inside and outside school, as well as about their attitudes towards the use of media in classrooms. The data collected is useful for analysing the macro, meso and micro perspectives of digital capital and for supporting education system reform in the digital age.

The "Global Kids Online" methodological toolkit for research with children and parents was used as a starting point for developing a 45-minute questionnaire for the teachers' survey. The questions relate to access, online practices inside and outside school, digital skills, opportunities, mediation of internet use and sources of information. The questionnaire included questions related to the macro, meso and micro dimensions of

digital capital and so the data collected offers a useful insight into the indicators of digital capital according to these three perspectives.

In total, 911 teachers from 75 primary and secondary schools in Montenegro were interviewed.

	Gender		Age				Region			School type		
Total	Male	Female	Up to 35	36–45	46–55	56+	North	Centre	South	Gymna-siums	Vocational schools	Primary schools
100	28	72	22	29	32	18	32	48	20	7	27	66

Table 1: Sample structure (%)

The sample was constructed in such a way as to be nationally representative – the researchers considered the region, type and number of schools. Schools were selected randomly from the list of schools proportional to their size within the stratum. Teachers were also selected randomly from the list of all the teachers in the school.

As shown in Table 1, the sample contains more female (72%) than male teachers (28%), as that is representative of the general situation in the country. Two-thirds of the teachers come from primary schools, as these schools are more numerous than high schools in the country. One in two teachers are aged below 45 years, one in three are 46–55 years old and almost one in five are over 56 years. Almost half of the teachers live in the central region, while around one-fifth are from the south and almost one-third from the northern region. This is in line with the fact that the central region is the most densely populated one.

Results

The key findings of the nationally representative research conducted among primary and secondary school teachers in Montenegro (Unicef Montenegro, 2019) are presented according to the three perspectives of digital capital discussed in the introduction: macro, meso-social and micro.

Macro perspective

Only 2% of primary and secondary teachers in Montenegro do not use the internet. The majority of teachers use it on a daily basis (94%). Even though most of them (87%) have internet access at school, teachers use the internet most often at home (91%), while only 4% say that they use it most often at school. The reason behind this could be the fact that the internet is generally not available in all school premises. More than half of the teachers had problems using the internet at school, and issues with the internet connection are identified as the most frequent challenge relating to use of the internet at

school. Most of those who do not have access to the internet at school (85%) claim that they would use it for teaching if it became available in their schools.

This data indicates how important it is to make the latest technology and internet access available in all the premises of every school. However, this is only the first step since, in order to ensure that digital technology is used in classrooms effectively, it is necessary to provide adequate training for teachers continuously. Four in 10 teachers think there should be more training of this kind and three in 10 have not undergone any kind of computer literacy training.

Research shows that there is a significant demand among primary and secondary teachers for free digital pedagogy training and similar courses. More than 80 percent of teachers claim to be interested in attending such training. However, there is an intergenerational and gender digital divide, and female teachers confirm this in their higher percentages, while teachers over 56 years are least interested in such opportunities. Teacher training is identified as the number-one motivating factor for using the internet in the classroom. This finding confirms the importance of providing more of these training sessions continuously.

On a daily basis, teachers use smartphones the most, and then PCs as sources of information in general, while books come only in fifth place after TV and online news portals. This finding suggests that the training sessions should include active use and provide training materials primarily on smartphones and PCs, as the two most used devices. This proposal is also supported by the fact that the majority of teachers use smartphones (86%), PCs (58%) and laptops (57%) to access the internet every day. Furthermore, most teachers have a social media profile (59%), especially those under 45 years old, and primarily on Facebook (95%). Therefore, access to this social network should be made possible in schools both for teacher training and for teaching purposes in the classroom. The school portal for teachers is the second most visited website by this group of professionals, which means that digital pedagogy and similar training materials and good practices should be shared there too. Finally, the fact that most of the teachers (69%) read online texts every day and that they find information in them more easily (57%) than in offline ones, while one in two (48%) find them more interesting than printed texts, also speaks in favour of supporting teacher training through digital resources.

To summarize, when it comes to the macro perspective, digital capital indicators related to the material dimension indicate that the technological infrastructure of schools and the availability of digital resources for teaching need to be further improved. Digital capital indicators for the non-material dimension point to the need to increase investment for the strengthening of teachers' digital competencies, as demand for such courses already exists among most of the teachers.

Meso-social perspective

From the meso-social perspective, focusing on the use of technologies in the classroom, the Montenegrin research shows that there is great potential that needs to be

realized in the future in order to increase effective use of technologies within and outside the school.

At the moment, the majority of teachers use the internet at school mostly just for checking information online. In the classroom, the internet is mostly used for having students look for information online regarding lessons. Half of the teachers say that they have never asked their students to create multimedia messages on the topics studied. The majority of teachers do not use social media or simulate the work of a newspaper/TV/radio/online news portal to teach a lesson in the classroom.

Teachers report using the internet more outside of school for educational purposes. Most often they use it for checking information online. They use this information and relevant online educational contents for preparing classes and for creating practical exercises for students (e.g. for mathematics/music/language lessons). Teachers of vocational subjects use the internet more often than others in this way.

When it comes to teachers' mediation of students' internet use, the survey explored about different types of mediation. On one hand, the questions asked the teachers whether they talk to their students about what they do online; whether they encourage them to explore and learn things online; whether they sit with their students or near them while they use the internet in class and whether they do shared activities online with the students. On the other hand, the survey also explored whether students ask for the teacher's help through a set of questions: whether a student has ever started a discussion with him/her about online things; whether a student has told him/her about an upsetting internet experience; whether a student has asked for advice on how to behave online or on how to handle a challenging online situation; and whether a student has helped him/her to find or do something online.

The data reveals that one in three teachers do not talk to their students about what they do online, or else do this rarely. These are more often teachers with no internet access at school and those teaching vocational subjects and working in vocational high schools. One in five teachers do not encourage students to explore and learn online: they are also more often those who are teaching vocational subjects and working in schools without internet access. These findings point to a link between digital and social inequalities and to the fact that both children and adults without access to the internet and basic digital skills are a disadvantaged group in a digitally divided society. The majority of teachers do not engage in online activities with their students, which points to limited use of the internet.

When asked whether students approach them to ask for help regarding online things, the teachers' mainly negative responses highlight that there is a general lack of active teacher mediation of the internet. Most teachers have never had a student complain to them about upsetting things on the internet or ask them for advice about how to behave online or how to handle a challenging situation online. The majority of teachers have not had a student help them do or find something online. These findings also point to the limited use of the internet as a tool for learning and for reinventing the teacher's role in the digital age as that of a knowledge and cultural mediator.

Montenegrin research shows that the use of technologies and the internet in the classroom is not encouraged. Most teachers do not organize the teaching setting so that students can use their mobile telephones or webcams, make, share, comment or watch video clips related to the lessons, update Wikipedia, write, comment or publish a blog, make a comic, take part in an online debate on the issues studied in the classroom, etc. This finding highlights how important the school culture is, as it determines whether and how new technologies are used when they are available.

To summarize, the situation in Montenegrin primary and secondary schools from the meso-social perspective of digital capital is not advanced: the use of the internet at school and in classrooms is quite limited and so is the teachers' mediation of it. Teachers use digital media mostly for searching for information online and exploring the topics taught in the classroom. Media production and analysis in classroom are generally not promoted for didactic purposes. Similarly, teachers seem not to be involved in internet mediation activities to support students' digital literacy while further investigating the topics studied online.

Micro perspective

The micro perspective is focused on the digital competencies and practices of teachers and others within the school context. The Montenegrin research provides insight into five types of teachers' digital competencies – operational, informational, social, creative and mobile – according to the "Global Kids Online" framework.

The majority of teachers have operational skills – they know how to open up a browser on the computer, how to open downloaded files, save a photo they have found online, change privacy settings online and use shortcut keys. Gender and age come out as important for the digital divide: male teachers and teachers over 56 more often admit to not knowing how to perform these tasks. Also, the type of school where the teacher works makes a difference, as gymnasium (general secondary school) teachers show the greatest confidence in their operational skills.

Most teachers are confident about the information/browsing skills measured through this survey. They can easily find websites they have visited before, choose the best keywords for online searches, find information online for their classes, check if the online information is true and use the internet during classes. However, one in two teachers admit ending up sometimes on websites without knowing how he/she got there. Male teachers and teachers aged over 56, as well as those without access to the internet at school, are more often those who admit to not knowing how to do any of these things. These findings highlight that this type of digital skill should be further strengthened.

When it comes to social skills, most teachers are quite confident and claim to know which information they should and should not share online, as well as how to remove people from their contact lists. An intergenerational digital divide is present here, as teachers over 56 years old admit more often to not knowing how to do these things. Also, access to the internet at school plays a role, as teachers who do not have this more often

say that they do not possess these social skills. Gymnasium teachers are somewhat more confident in these skills compared to teachers working in other types of schools.

Creative skills are the least developed ones: the majority of teachers do not know how to design a website, create something new from a video or music they have found online, edit online content made by others or post a video or music that they have created. Teachers are most confident about identifying which type of licences apply to online content – 57% claim to know this. It is interesting that male teachers are somewhat more confident about their creative skills, although they are generally less confident about other digital competencies. Also, teachers of natural sciences show the highest level of confidence about their creative skills. Here again, age makes a difference, as teachers over 56 are least confident.

Finally, most teachers say that they have mobile skills: they know how to install apps, track the costs of the use of an app and make an in-app purchase. As for other digital competencies, teachers over 56 years old are the least confident ones.

On average, teachers' social and operational skills are the most developed skills, while creative skills are least developed, and teachers of natural sciences show a higher level of confidence compared to others.

Discussion

The sociological debate about digital capital is complex, because it takes into account interconnections between a variety of variables – material ones (technological qualifications) and non-material ones (digital competencies) – which are analysed according to different perspectives: macro-, meso- and micro-social. In addition, the implications of digital capital in terms of social, financial, cultural and human capital (Bourdieu, 1986) are also considered.

Analysis of the key findings of the Montenegrin research from the macro perspective indicates that, generally at the national level, there is a good school infrastructure with access to technological equipment. However, the process of school digitalization today cannot be analysed only from the perspective of the availability of technology, but must also be analysed from the perspective of considering other variables, such as the type and speed of internet connection, the process of the use of media within the school, the availability of the internet in classrooms and the number of classrooms with the broadband internet connection needed to cope with constant innovations brought by new technology. Digitalization cannot be considered as the only factor which determines the development of a high level of a school's digital capital. Investing in teachers' and students' cultural capital (in terms of digital literacy) is essential for ensuring that a cultural shift in the processes of media socialization happens. This cultural change leads to a new awareness, communication responsibility and ethical behaviours within the relationship dynamics and actions in the digital environment.

For example, this investment in the teachers' and students' cultural capital can be in the form of digital literacy training sessions and courses which can be systematically

promoted in all schools throughout the country by the relevant authorities and in co-operation with universities and other institutions specializing in media literacy. These courses would be aimed *in primis* at teachers in order for them to acquire new digital soft skills (Cortoni & Lo Presti, 2018) and new ways to communicate with their colleagues and students through the better use of communication technologies. Also, the aim would be to strengthen teachers' capacities to propose new didactic approaches in order to stimulate students' cognitive and metacognitive processes, development of socio-emotional skills and active participation in the activities proposed by teachers. Providing teachers with adequate digital competencies means also supporting the development of students' digital soft skills, as they start trying new ways of communicating with each other and with their teachers and new ways of participating in didactic activities by means of digital devices.

An educational system which is sustainable from a technological point of view has to engage all the school actors and cover all school premises – all classrooms and administrative offices, in order to ensure complete technological coverage (Ferrari, 2017).

It often happens that the availability of digital equipment is not accompanied by an appropriate number of activities in which this equipment is used in everyday school practices. The key challenges to the socio-cultural inclusion of digital technologies in the school system are related to the lack of a proper educational strategy to promote this within the school management and organization, the fact that attitudes against the inclusion of digital media in school often remain widespread, a lack of motivation and an ideological and practical rejection of digital technology by some teachers and school principles (Capogna, Cocozza & Cianfriglia, 2016; Ferrari, 2017).

From a meso-social perspective, the analysis of digital capital takes into account the relationship dynamics, didactics, management, and the organizational and evaluation practices of various actors within the school. All of these can be improved and renewed thanks to the material and non-material resources of the school's digital capital.

In Montenegro, despite the government's investments in schools' infrastructure and technology, the daily practice of using digital technology in the classroom as part of didactic innovation seems to be marginal. Research suggests that there is limited support for the development of students' notional and transversal competencies (digital education), as well as for the further strengthening of teachers' and students' digital soft skills within the digital literacy perspective. If we consider the European framework – the digital competence framework for educators (DigCompEdu 2017) (Redecker & Punie, 2017) – in order to assess the digital capital of Montenegrin schools from a meso-social perspective, we see that the only area in which teachers seem to be oriented towards the use of digital technology is that of professional engagement, as they use media above all to improve their professional development (cultural capital).

On the other hand, what is lacking is the use of digital technology in the other areas and practices mentioned in the DigCompEdu framework, such as: the use or creation of digital resources for preparing didactic activities; teaching and learning within the digital education perspective; assessment by means of technology; the use of digital media to

empower learners and strengthen their transversal competencies; and supporting learners to develop digital competencies through digital education courses (Redecker & Punie, 2017).

Considering the European Digcomp framework, introduced in the background section, analysis of the results of the Montenegrin research shows that access competence is the most present competence among the interviewed teachers. Access, however, refers not only to basic knowledge of the key concepts, which is widespread among Montenegrin teachers. It also refers to more complex things, such as knowledge about media effects (strategic knowledge), about the basic rules of the narrative structure of a media message (procedural knowledge), about media production systems, as well as about media consumption and the process of communication feedback. These more advanced forms of knowledge seem to be less present and practiced by teachers in Montenegro.

Critical analysis is a digital competence which uses one's human and cultural capital to mobilize metacognitive resources of information selection, recognition of multimedia symbols and semantic interpretation of a text. In reference to Digcomp and the Montenegrin research, this competence is to be found within the area of information and data analysis, as it refers to two specific indicators: 1) browsing, searching and filtering; and 2) evaluating data. Analysis of data from the Montenegrin research shows that the competence of carrying out online research while using specific analysis criteria is more present in teachers' habitual practices than the competence of doing an assessment of a multimedia text online.

As far as creative production is concerned, the Montenegrin research shows clearly that this is generally lacking in the cultural background of teachers. It includes different abilities, such as the production of multimedia content on different media interfaces; the use of open-source apps or software; and programming.

Competencies linked to digital awareness, safety and problem solving from Digcomp are not well represented in the research questionnaire, and so further research is required to make comments on these areas. The first competency refers to taking autonomous actions for using media and it has four key indicators: 1) device protection; 2) protection of personal data and copyright; 3) protection of individual and collective wellbeing; and 4) environmental protection. Problem solving, on the other hand, refers to the teachers' capacities to manage media autonomously and in a personalized way based on the needs of the socio-cultural and didactic contexts in which they work. The indicators for this competence are: 1) the teacher's capacity to solve technical problems; 2) their capacity to identify students' needs, to which they need to provide proper technological responses; 3) creative and personalized use of digital technologies; and 4) the capacity to identify gaps related to digital competencies.

To conclude, the Montenegrin research highlights the need to invest more in education and experimentation related to the meso- and micro-social perspectives of digital capital. The aim should be to support the realization of teachers' transversal competencies in order to improve the level of digital awareness and critical analysis of media among teachers and students. Finally, digital education practices should be supported

in order for didactic methodological innovation to become a systemic and consolidated everyday didactic activity.

Authors' note

Ida Cortoni has written Introduction, Digital capital: concepts and background and Discussion; Jelena Perović has written Objectives and Methodology and Results (macro-perspective, meso-perspective, micro-perspective).

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Interview | *Entrevista* ◉

Children and youth cultures meet the challenges of participation – interview with Henry Jenkins
As culturas das crianças e dos jovens encontram os desafios da participação – entrevista com Henry Jenkins

Pedro Moura
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Henry Jenkins, the Provost Professor of Communication, Journalism, Cinematic Arts and Education at the University of Southern California, has been at the centre of several core discussions about the media and communication fields over the last 30 years. *Textual poachers* (Jenkins, 1992/2013) marked a decisive turn in fandom studies, stressing that fans and their (participatory) cultures can and should be discussed independently from the prejudices that had tended to prevail until then. In the early 21st century, while discussions about the concept of convergence focused on its technological destinies and economic imperatives, Henry Jenkins emphasised the need to pay attention to its cultural dimensions (in particular those deriving from, or inspired by, the increasing visibility and strength of participatory cultures). His research culminated with the publication of another book, *Convergence culture* (Jenkins, 2008). Not surprisingly, participation is still an important concept in Henry Jenkins' current research. This interview revisits some of the traditional ideas of his previous works and also discusses some of the most recent ones (such as civic imagination). Present and future theoretical and methodological dilemmas facing anyone trying to make sense of participation, as well as research gaps, are also discussed. The conversation was guided by the specificities of children and youth cultures in view of the challenges of participation.

Pedro Moura (P. M.): The concept of participation – as well as the idea of a (more or less) participatory culture – is central to your work. In a previous article (Jenkins, 2014, p. 271), while discussing what meaningful participation might be, you stated that it is urgent "to develop a more refined vocabulary that allows us to better distinguish between different models of participation and to evaluate where and how power shifts may be taking place". Since then, have we, in the academic field, advanced any further in relation to these objectives? Is it easier, nowadays, to understand and acknowledge the nature of "meaningful participation"?

Henry Jenkins (H. J.): Yes and no. The issue of meaningful participation is if anything more urgent today, due to crisis confronting democracies around the world, than it was in 2014. My blog, *Confessions of an aca-fan*[1] hosted a conversation amongst some

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[1] Available at https://henryjenkins.org/

30 different scholars in 2019 focused around the role of participatory politics in an era of global crisis. In an exchange with Nico Carpentier, I outlined some core questions we might ask about any form of participatory culture (Jenkins & Carpentier, 2019a):

- *Participation in what?* How do the participants understand their own participation – as part of a public, a market, an audience, a fandom, etc.? To what degree do they identify as part of a community or network which is larger than the individual?

- *Participation for whom and with whom?* Who is included and who is excluded? What mechanisms of exclusion and marginalization persist despite the increased opportunities for participation?

- *Participation towards what ends?* What are our participatory activities trying to build? What do we hope to achieve in working together?

- *Participation under what terms?* What constraints are imposed by the technological, economic, political, and legal systems within which we operate?

- *Participation to what degree?* What are the limits on the power that comes from a more participatory culture?

To which Carpentier added three further questions of his own (Jenkins & Carpentier, 2019b):

- *What makes participation possible?* Here, the focus is on the preconditions for participation, whether understood in terms of technological affordances, legal and governmental policies, corporate strategies, social structures, that enable participation.

- *What is the level of participation?* There is some overlap here with my question about "participation to what degree" which asks about how much people are allowed to participate but we could also think of this as a question of scale – how many people are participating.

- *And what does participation then do?* Again, there is some overlap with my question about "participation towards what ends" but I see this question as focused on the actual effects of participation – what changes in the world as a consequence of our participation?

Put these together and we start to have a framework we can use to better understand different forms of participation. We can ask these questions, I would argue, of participation at all levels – from highly informal and local interactions within a subcultural community to global interactions between nations, since in fact, it is through relatively informal modes of participation that we acquire the skills and mentalities which would enable us to participate in deeper, more substantial, forms. Carpentier has developed philosophically rigorous definitions which set borders on what counts as participation. I prefer messier, more fluid, definitions that allow us to identify the spaces where democratic participation is struggling to be born and where its ideal forms have not yet been achieved. But where we agree is that when we talk about forms of participation, we are really pointing to the intersection between democracy and the practices of everyday life.

P. M.: You are a member of The MacArthur Research Network on Youth and Participatory Politics (YPP)[2]. Considering the network's research, what kinds of participation are we talking about? Is it possible to identify key prevailing trends or is the current situation marked by too many different types of participation?

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[2] The network's website is available at https://ypp.dmlcentral.net/

H. J.: I *was* a member of that network, which unfortunately ended its ten-year mission in 2016 just as the ground shifted under us here in America and many other places around the world. The group defined participatory politics as:

> interactive, peer-based acts through which individuals and groups seek to exert both voice and influence on issues of public concern. Importantly, these acts are not guided by deference to elites or formal institutions. Examples of participatory political acts include starting a new political group online, writing and disseminating a blog post about a political issue, forwarding a funny political video to one's social network, or participating in a poetry slam. (Cohen, Kahne, Bowyer, Middaugh & Rogowski, 2012, p. VI)

Building on that definition, our book, *By any media necessary: the new youth activists* (Jenkins, Shresthova, Gamber-Thompson, Kligler-Vilenchik & Zimmerman, 2016) mapped some of the ways that skills learned through participatory culture were being deployed by young people – in this case, mostly in the United States – towards participatory politics and since then, my research group has continued to trace those connections, including a recent case study of the "March for Our Lives" campaign (Jenkins & Lopez, 2018), organized by high school students, to end gun violence. We found that engagement with informal, social and subcultural forms of participation (such as fandom, gaming, crafts communities, religious groups, etc.) enabled youth to develop their own voices as cultural and civic agents, to acquire skills at organizing and mobilizing others. The new forms of participatory politics, which have been led by young activists around the world, display new forms of political organization (which are more horizontal, participatory and networked, often described as "leaderless" but really spaces where any participant can step into a leadership role as needed), new modes of political expression (which draw on popular culture for its vernacular), new tactics (which seek social change through any media necessary) and new political identities (which grow out of intersectional thinking).

We are seeing similar efforts around the world from the students in the streets of Hong Kong to the use of cumbia music as a rally cry in the political struggles in Chile. Since the YPP network disbanded, my research team has been focused more on what we describe as the civic imagination, looking at the ways different social movements imagine the futures they are working to achieve, their own civic agency and identity, their shared links with others in their communities and beyond, the process of political change, and the spaces where their activities occur. This research[3] includes both case studies – as reflected in our recent book, *Popular culture and the civic imagination* (Jenkins, Peters-Lazaro & Shresthova, 2020) – and workshops in communities around the world – as recounted in our other recent book, *Practicing futures* (Shresthova & Peters-Lazaro, in press). Our goal is to develop a cultural theory of political change, understanding the ways that people draw on shared resources (whether religious, folk, popular culture,

[3] The project's website is available at https://www.civicimaginationproject.org/

or national history) to imagine other possibilities for themselves and to motivate their political action. We are increasingly interested in the civic as the social agreements which members of communities make to each other that enable the struggles over power and resources (i.e. politics) to persist without totally destroying the connections that hold us together, making democracy a possibility. We are interested in how those acts of the imagination may in some case precede or persist after the political structures of democratic participation have been usurped by more totalitarian forces. So, for example, what inspiration do Hong Kong students take from collectively singing "Do you hear the people sing?" from *Les Mis* as an expression of their aspirations for a more democratic culture or how might YouTube comedy provide a residual voice of student protest in Egypt following the collapse of the Arab Spring movement there?

P. M.: What about young people who do not engage in such activities, in particular the peers (e.g. schoolmates) of those who do participate? Has the MacArthur Research Network or any of your works identified any reasons that could explain why such young people were not willing, or able, to become involved in these acts of participation? How did the most participative people make sense of the absence of participation (at least as far as they knew) of other young people like them?

H. J.: First, we did find examples in our research for *By any media necessary: the new youth activists* (Jenkins et al., 2016) where young people who were active fans brought friends and others (who were not necessarily fans) into involvement with the "Harry Potter Alliance", the "Nerdfighters", and other fan activist efforts. Some join simply because they like the community and not necessarily the source materials.

Second, the "Connected Learning" network (Ito et al., 2013; Ito et al., 2018; Watkins et al., 2018), also part of the MacArthur Foundation efforts, has spent more time focused on identifying those conditions which allow young people to translate skills, knowledge, and experience gained through participation in informal participatory networks into cultural capital which benefits them at school, work, and elsewhere. In general, their research recognizes the need for adult mentorship, people who are sympathetic to the ways young people benefit from online participation and know enough to offer ethical advice on the best way to deal with the risks and conflicts children and youth may encounter there. Without adult mentorship, some young people may not find their way into networks that engage their interests and passions or learn to deploy those experiences as gateways into other opportunities for growth and learning. Some young people find their mentors from fan or gaming or crafting communities – people who recognize something of themselves in these young people and are there to address some of the bumps along the way. We are starting to understand the many factors which limit young people's degrees of participation – from technological issues of access to the support system which value young people's participation to core literacy skills – but we know less about what might motivate one young person over another given the same conditions to choose to

participate given the opportunity. And we do not yet have a clear sense of how young participants think about youth who are not participating – what forms of peer pressure might point towards participation as opposed to being hostile to the geekier or nerdier aspects of participatory culture.

P. M.: A 17-year-old teenager, Greta Thunberg, is currently able to set, at least in part, the international agenda on the climate emergency. As far as I can see, it seems safe to identify at least two broad reactions: one enthusiastic, amidst more progressive circles, and one antagonistic, namely among more conservative people. How can we make sense of this mixed reaction? For instance, does repeatedly stressing her age as an argument, by commentators from either of these two trends, reveal how unaccustomed we are to listening to, and being confronted by, the inputs of children or teenagers?

H. J.: When I think about the political voices that have inspired me the most in the past year, they have been young people – from Greta to the Parkland high school students to Alexandra Ocasio-Cortez in the United States House of Representatives. Here, we see something like what we experienced in the 1960s when young people questioned their elders and demanded a better future for themselves. Yet, you are right that these are some of the groups and individuals who have been most demonized on the right. Our research found that right-wing organizations tend to be more hierarchical, less participatory, less open to active youth voice and engagement, despite rhetoric which suggests they are somehow closer to the people than so called "liberal elites". The right (at least in the U.S. context which we were studying) are more likely to recruit young intellectuals from elite universities into their think tanks than to support young people creating their own organizations to work for social change. The Tea Party which is often put forth as an example of a more participatory movement on the right skewed much older with little to no space for youth leadership. The alt-right has been somewhat more aggressive at recruiting angry young white males from fan discussion forums and gaming platforms, but the conservative political establishment has sought to keep these young people in their place. So, we should not be surprised when right wing commentators tell young activists to go back to school and wait until they are older to engage in the political process. Such comments are consistent with various strategies of voter suppression in the United States which, among other groups, target student populations. For sure, we, whether on the left or the right, do not provide meaningful outlets for young people to share their political concerns with adults which are why these moments where youth leaders break through and disrupt politics as usual are so remarkable. But we are seeing more such moments around the world as a result of young people's active participation in online spaces which amplify their individual voices and make collective action easier. And it is exciting when, for example, Greta emerges at *Time*'s "Person of the Year", because it does suggest the power of these alternative models of political leadership to make a difference in mainstream media conversations – at least some of the time.

P. M.: I would say that another of your key ideas is transversal to this conversation so far – that these informal, interest-driven, and many times online-media-based groups may be viewed as the activities of knowledge communities. Do you agree? Is this concept still able to represent some of the most relevant forms of collective participation? In the case of young people, how do these or other forms of participation relate to more traditional instances of socialisation – such as families or school?

H. J.: The concept of knowledge communities is still very important in understanding the bridge between participatory culture and participatory politics or learning. In a knowledge community, nobody knows everything but people pool resources, alerting each other to new developments, evolve shared vernaculars for expressing their shared concepts, and mobilize quickly in responses to changes in their environment. This is precisely what we find when we look at youth organizations that have been effective at moving young people towards activism. For example, we've seen young people in the "Dreamer" movement or the "March for Our Lives" movement track state and local laws which are under debate and direct collective responses and resources towards sites where they may do the most good. The "March for Our Lives" movement has been successful at changing more than 55 gun laws across 26 states (Jenkins & Lopez, 2018). The "Black Lives Matter" movement also operates as a knowledge community which identifies patterns of racialized police violence by using a shared hashtag to accumulate information about local examples which might have otherwise escaped notice but collectively, point towards systematic problems. In terms of your last question, I would not want to argue that these networks replace other instruments of socialization, though they no doubt do for some youth who might otherwise fall through the cracks. They are effective in part because such groups attract youth and adults, alike, and thus facilitate a range of informal and formal mentorship relationships which would not occur otherwise. This is why panic about adult threats to youth online are so tragic. We all know that it takes a village to raise a child, as the old expression goes, but sometimes we are so busy protecting children from the village that we fail to recognize and support the values of these kinds of cross-generational exchanges. If we acknowledge the power of these kinds of supportive relationships, we need not see the online world as a threat to schools and families. The "Connected Learning" network (Ito et al., 2018) have offered us models of how learning can take place at the intersections between school, home, and peer culture.

P. M.: As I already mentioned, some of your research into youth participation and activism departs from fandom and contents such as transmedia stories; from the premise that attempts to participate in this sort of popular culture can be viewed as a threshold before entering into other kinds of participation (Jenkins, 2008, 2012a). After all these years of research, what overall conclusions do you draw? Are non-fans also using, in any way, the participatory opportunities provided by pop culture?

H. J.: This is where our concept of the *civic imagination* gains some of its power. Fan activism represents one form which the civic imagination may take, where people tap the infrastructure established through fandom in order to organize for collective action. I have been watching a recent case in point. J.K. Rowling recently made some statements that have been read as reflecting prejudice against transgender people. The news quickly spread online as a consequence of the existing network of activists that has grown up around Harry Potter through the years. And Jackson Bird (2019), formerly of the "Harry Potter Alliance", wrote a powerful editorial in *The New York Times* expressing his disappointment as someone who came out as trans through the support of the Harry Potter fan community. Jackson is one of a generation of young activist who found their political voice through Harry Potter and are now working for social change across a range of other social causes. That shared history makes it possible for these groups to work together when the times call for intersectional action. But fandom is only one kind of participatory culture through which people can acquire skills to work towards social change. And cult media represents simply one source from which activists may draw shared vocabulary through which to express their vision for a better world. In some cases, memes are taking root in one community and spreading outward across the culture. In many cases, protests deploy a broad range of popular mythologies in their signage and speech. All of this is to say that fandom represented my starting point for exploring these connections but today, everywhere we look, politics is being shaped by expectations of participation and language drawn from popular culture. This is touching many people who would not call themselves fans *per se* but who are inspired through even casual consumption of popular culture to see the world through different eyes. And while we see popular culture as a key vernacular for today's young activists, we also see forms of activism that take roots through faith-based organizations, whether immigrant rights groups rooted in the American Muslim community or anti-poverty campaigns emerging from southern churches.

P. M.: The public dissonance between the most recognisable author of a transmedia franchise and part of the latter's fandom is something that deeply resonates with my own condition as an aca-fan, to use another of your expressions. This recent example within the Harry Potter franchise, discussed in a quality newspaper such as *The New York Times*, or, something that is closer to me, the controversies and accusations (on both sides, from misogyny to hidden agendas) surrounding the reasons for the divisive reception towards Disney's *Star Wars*, show how much visibility fandom has achieved since the publication of your seminal work *Textual poachers* (Jenkins, 1992/2013). As you have mentioned, these stories may fuel participation, by inspiring actions, by providing symbolic resources, etc.. But is there a dark side to any of this?

H. J.: We now have a deep body of scholarship showing the broad array of literacy, social, civic, and technical skills which fandom can help to foster (Jenkins, 2019). But

I am as concerned as anyone about some of the increasingly toxic aspects of contemporary fan cultures. The "#gamergate" controversy, which directed mostly male anger against women's participation within the gaming world (as players, designers, and critics), heightened our awareness of these tensions around race, gender, sexuality, and other differences within these online communities (Gray & Leonard, 2018). The mostly white male backlash against *The Last Jedi* is another example of how these communities can act out against anything they regard as a threat to their entrenched privilege (Proctor, 2019). Some research (Bay, 2018) suggests that these tensions are being fed by outside groups – Russian hackers, for example, seeking to tap wedge issues in American culture in anticipation of the 2016 elections, alt-right and white supremecist groups seeking to recruit younger white males have both been documented as playing a role in intensifying and sustaining *The Last Jedi* controversy.

There has also been a tendency to over-state some of these tensions through news coverage, focusing attention on the most hateful aspects of fandom, while under-reporting the efforts of fans to support more inclusive representation, say. Right now, for example, I am watching fans rally around the actress Kelly Marie Tran, since she was first bullied aggressively online during *The Last Jedi* debates and now, many feel, she was sidelined from *The Rise of Skywalker* as a result of the Disney corporation's efforts to appease the angry fan boys. We should be concerned about these darker sides of participatory culture, but we should also be aware of the ways fandom has become a testing ground for alternative ways of representing race and sexuality (Jenkins, 2017) or an advocacy group in support of greater diversity in the entertainment industry (Lopez, 2012). Those of us who care about meaningful participation need to speak out when certain fan or gamer communities turn toxic, but we also need to help contextualize such developments so that they do not taint all forms of participatory culture. Again, we need to develop a deeper understanding of different forms of participation as we seek to help young people find their ways into communities that may best support their interests and aspirations.

P. M.: In a previous case study with Portuguese young people, developed within the framework of the "Transmedia Literacy" project, the authors found a discrepancy between formal and informal learning (Pereira, Fillol & Moura, 2019). While pop culture content, such as videos by YouTubers, were relevant learning sources, they were never discussed during classes. The students' informal learning practices were not valued or even referred to; some young people also considered that their teachers' lack of knowledge or interest regarding their media practices was perfectly "natural". Does your research, in a context that is distinct from the Portuguese context, also suggest that media (and a large part of children/youth cultures) lies outside the classroom?

H. J.: Yes, this is a concern which has been raised again and again. School culture has been shaped by older models of politics (ones which emphasize governmental structures rather than grassroots social movements) and culture (ones which stress

traditional high culture rather than popular culture). Some of these constraints come from a good place such as the desire to make the schoolhouse a non-commercial space which leads some educators to distrust popular culture as mass culture. Even from that perspective, though, these attitudes are of limited use since they do not provide a meaningful context for fostering media literacy as a set of skills which encourage young people to discern the motives and messages coming from the media industries. But they seem progressively out of touch with a world where young people are finding their voice and fostering change through their meaningful engagement with networked communications and their creative remixing of popular culture resources. It is important for young people to learn from other youth around the world who are taking media in their own hands and using it as tools for social change. The current situation can be profoundly disempowering since young people are taught to feel guilty about strategies that are successful for them outside the classroom, to distrust their own judgements and devalue their own participation under the withering eyes of their teachers.

P. M.: Participation and production are dimensions of the European Commission's definition of media literacy, alongside more classical concerns such as access, use, and critical understanding (Recommendation 2009/625/EC). However, assessing and understanding different kinds of production – distinguishing degrees of commitment, production values, awareness and critical thinking, this time in relation to young people's own creative works, etc. – can be a challenging task for researchers (Pereira & Moura, 2019). Once again, we are talking about meaningfulness: what a meaningful creation can be, and how to recognise and make sense of it, from the researcher's perspective, when the corresponding cultural codes may separate such works from young people. What are the challenges of studying young people's production practices?

H. J.: The questions you ask here could not be more urgent. We need to search beyond those kinds of informal learning communities that look most like the forms of knowledge that adults already value. Such networks are also apt to be the communities that attract students who already benefit from the resources of conventional education. If we are not careful, support for these kinds of informal learning opportunities may simply be another kind of privilege enjoyed by the middle and upper classes. We should also be careful about imposing structures that transform the mechanisms for reward and advancement in these communities into those which are adult-controlled and policed. This is a reason why I have historically opposed the trend towards badging or credentialization which was a fad in the digital media and learning world a few years back (Jenkins, 2012b). Again, such mechanisms could be off-putting to those who often feel marginalized or discouraged within school culture and need alternative spaces where they can thrive and learn. Ideally, we can be open-minded enough to ask questions about why activities or materials that may not necessarily be meaningful to us may matter very much to young people, especially those on the margins or at risk. This approach, as you

suggest, requires us to learn to read cultural codes which may not be simply alien to us but which were designed to be cryptic in our eyes as a way of protecting a space for youth autonomy. We need to understand before we seek to assess the forms of learning which takes place here. The ultimate judge of their meaningfulness rests with the young people involved and the ultimate challenge for educators is to listen to what they have to say about their value, even when the youth themselves do not speak the language of school culture very fluently.

P. M.: One of the articles I mentioned earlier (Pereira et al., 2019), as well as some of your most recent works (e.g. Jenkins, Peters-Lazaro & Shresthova, 2020; Jenkins, Shresthova, Gamber-Thompson, Kligler-Vilenchik & Zimmerman, 2016), are more or less based on case studies. Is it possible (or even desirable) to go beyond these narrowly focused approaches? What kinds of methodological approaches do you envision for future research into children and youth cultures?

H. J.: Thankfully, we have researchers who are approaching this question from both directions – larger generalizations give us shared vocabulary we can use to draw meaningful comparisons across case studies where-as case studies allow us to deal with the complexities and contradictions that arise as we attempt to apply our theories. My own bias as a researcher is towards case-study based approaches, as I enjoy the process of discovery that comes from looking closely at something which is happening on the ground. Through these case studies, I can find examples of cultural and political innovation and reminders of the agency of ordinary people to collectively change their own conditions as they negotiate with real world constraints. Our theories are always going to be inadequate before the messy business of everyday life and so we test and refined them through close engagement with case studies. But we often need those theories of templates around which to structure our descriptions of what we observe and as means of communicating our discoveries to other researchers who are asking similar questions. As we do that work, we also need a mixture of critique (which helps to identify where current circumstances fail to meet basic human needs) and advocacy (which allows us to articulate alternatives to the *status quo*). There's a tendency for progressive academics to overvalue critique at the expense of advocacy, where-as I see my work as seeking to map and argue on behalf of creative alternatives that better address our desires, hopes, and aspirations for a better world. I see that work as counterbalancing the pessimism which is so often the unintended consequence of an academic discourse focused almost exclusively on critique.

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Acknowledgements

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